THE ERIC Review

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The Path to College

Making Choices That Are Right for You

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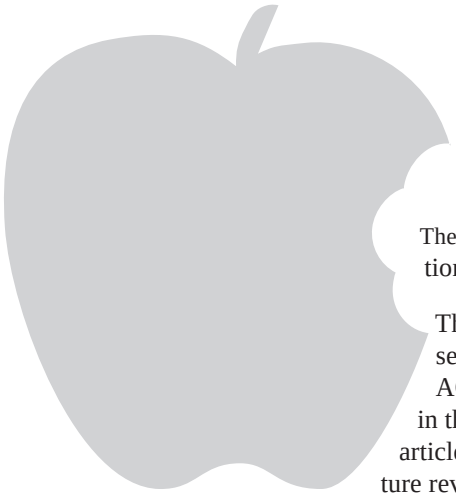

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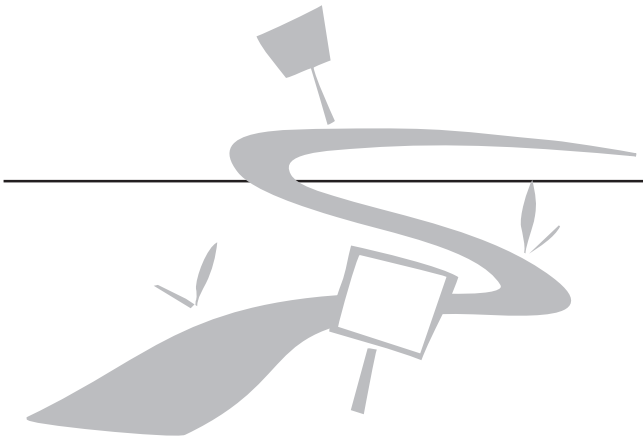

INTRODUCTION

The Path to College

by Adrianna Kezar

This issue of *The ERIC Review* is a compendium of resources, advice, and research to help guidance counselors, parents, and students plan for college. Throughout the issue, we use two guiding metaphors: *the path*, which represents a student's journey from high school to the postsecondary institution that is best for him or her (whether a public or private 2-year or 4-year institution or a vocational, technical, or career institution); and *the funnel*, which represents the process the student will use to gather and use information to come to a decision.

The educational journey has become much more complex during the last few decades: Students and parents are planning earlier, more people are providing advice, and print and electronic resources proliferate. In any journey, travelers have a general destination in mind but must choose from among many ways to get there. Each route offers distinct advantages and experiences. Travelers need to spend time determining which path is best for them, but help is available for making the decision.

We believe that the funnel approach to decision-making is one of the best ways for students to identify the path that is right for them. Think about a funnel: It is broad at the top but becomes increasingly narrow toward the bottom. Similarly, in the early stages of college planning, students need to be open to the wide array of institutional choices available, but as they learn more about themselves and the colleges (a term we use broadly to mean community colleges, 4-year colleges and universities, and vocational, technical, and career institutions), they can begin to narrow their selections.

Throughout much of this issue, we use the second-person voice. The "you" we have in mind is a student of the traditional college age—typically 17 to 22 years old—for whom college planning is the most significant decision to date. We want to help prepare and support young people and their parents at this juncture. Older students, who now make up a significant proportion of the undergraduate college population, will also find much of the material in this issue of interest, as will those who assist students in choosing their paths.

In this compendium, we focus on starting down the path to college; however, it's important to note that for many people, postsecondary education will be part of a lifelong commitment to learning, not a one-shot experience that ends in the third decade of life. Given the changing nature of the workplace and the lengthening life expectancy, many adults can expect to take courses at community colleges or vocational-technical institutions or participate in extension or certificate programs at 4-year institutions to retool skills or further develop interests.

The staff at the ERIC Clearinghouse on Higher Education hope that you find this issue of *The ERIC Review* a helpful resource. All the materials within that were written by members of the ERIC system are in the public domain and may be reproduced and distributed freely with the appropriate credit. We invite your comments and feedback so that we can improve this compendium, which will also be posted on our Web site (*http://www.gwu.edu/~eriche*). Feel free to contact us at 1–800–773–3742 or send us comments at akezar@eric-he.edu.

Here's an overview of the material you'll find in this issue:

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Section 1: Starting Out on the Path to College

Students who are considering the college path must first ask themselves, Should I go and why? Section 1 begins with "Why Get on the Path to College?" an article that will help you answer those questions. In keeping with the funnel metaphor, we then talk about the importance of staying open to many different choices as you begin college planning, in "Common Mistakes: Narrowing Your Choices Too Early." You can't begin to answer questions about which college might be right for you until you have analyzed your values, goals, and expectations for college. "Which Is the Right Path?" helps you begin your self-assessment. The final articles in this section address special issues that adult students, women, first-generation college students, and students with disabilities may wish to consider.

Section 2: Gathering Information and Narrowing Your Choices

This section reviews options for college and summarizes changes in the learning environment on campuses today. We have invited representatives of diverse institution types, including state universities, community colleges, private liberal arts colleges, career colleges, and colleges and universities that serve special populations to describe the unique aspects of their schools. Reviewing their discussions of various institution types will help you become aware of the full range of postsecondary choices that are available to you. A unique addition in this section is "At the Fork in the Path: Some Guidance from the Research," a review of the existing research that examines how your college experience and outcomes could vary depending on the institution you choose to attend. And since colleges themselves are changing, we've included an article about some major innovations so that you can take advantage of programs that are of interest to you.

College Planning Section

Jim Montague's "Planning for College: Some Issues for Students and Parents To Consider" will help you plan your high school schedule and understand the college admission and financial aid processes. The article also includes information about how parents can begin saving for college expenses and a sidebar article about new tax credits and deductions for higher education. Two checklists from the U.S. Department of Education's *Preparing Your Child for College* accompany the article: a college preparation checklist for students and a financial preparation checklist for parents.

Section 3: Making Decisions

Once you understand the range of postsecondary options available to you and how they may affect your college experience, you'll be ready to narrow your choices and begin making decisions. Section 3 discusses various decision-making tools and includes information about how to use college guidebooks, the Internet, and campus visits effectively.

Section 4: Succeeding on Your Chosen Path

Finding success and happiness on your path to college requires having appropriate expectations, avoiding obstacles, and getting involved in the academic and social life of the college you select. Section 4 provides helpful hints about making the transition from high school to college and includes some candid advice from two college students in "Looking Back: Advice from Two Students on the Path." We include a brief discussion about resources for graduate school for those students whose paths extend beyond undergraduate education.

Section 5: Library

College planning involves many more issues than we could ever fully describe in this compendium, so we've provided a sampling of print and electronic resources for further information. (Please note that the listing of specific institutions and print and electronic resources throughout this issue does not constitute an endorsement by the U.S. Department of Education.)

We wish you good luck as you start down your path.

SECTION 1

Starting Out on the Path to College

Why Get on the Path to College?

by Adrianna Kezar

Editor's note: According to the National Center for Education Statistics, there were 2,244 4-year and 1,462 2-year institutions of higher education, as well as 6,256 vocational and technical institutions, in operation during the 1995–96 academic year. In this article and throughout this issue, unless otherwise specified, we use the term college *broadly to refer to any of these postsecondary options.*

Why should you invest the time, money, and energy to attend college? In their book, *Does College Make a Difference? Long-Term Changes in Activities and Attitudes*, Knox, Lindsay, and Kolb note that "nearly everyone in America, indeed the world over, believes in a powerful connection between education and occupational success." They also note that "most Americans expect to have a good life that goes beyond monetary success and attaining status." Ernest Boyer, who interviewed students across the country as part of his famous book, *College*, reported that the students uniformly believed that going to college was essential to having a more satisfying career, earning adequate money, and having a "good" life. But because the benefits of attending college are often long term rather than immediate, many students question the value of attending college.

From a purely economic standpoint, the average rate of return on the investment in a college degree is between 9.3 and 10.9 percent. College graduates earn between 20 and 40 percent more money over their lifetime than people who do not attend college (Pascarella and Terenzini, 1991). A bachelor's degree is the major prerequisite for entry into relatively high-status and high-paying technical, managerial, and professional jobs; it also has a significant impact on career mobility (Knox and others, 1993). College graduates are more likely to be continuously employed and less likely to be laid off (Pascarella and Terenzini, 1991).

College also appears to improve the quality of individuals' work and personal lives, although it is possible that self-selection might also be at work—that is, students who choose to attend college might possess characteristics that lead to these outcomes, independent of their college experience. Compared with high school graduates, college graduates:

- Are more likely to have meaningful, interesting work and the freedom to make decisions.
- Tend to be more satisfied with their careers.
- Rate themselves as happier and more satisfied with life.
- Have higher self-esteem and more self-direction.
- Enjoy better health.
- Tend to be more efficient consumers; a higher education appears to equip them with the information acquisition and processing skills necessary to make more effective consumer decisions.
- Are more efficient in their savings and investment behavior.
- Are more effective speakers, have stronger verbal and quantitative skills, reason more abstractly, and are better problem solvers.
- Are more likely to question authority, be tolerant of other people and their views, be more open to new ideas, and think in less stereotypical ways.
- Tend to be more politically active.
- Are more likely to engage in reading and adult education, attend cultural or artistic events, and participate in community affairs.
- Are twice as likely to be involved with volunteerism and community groups.

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- Are more likely to attain leadership positions in their community and workplace.

These outcomes span all types of colleges, including community colleges, public and private 4-year institutions, and career or vocational colleges (Knox and others, 1993; Pascarella and Terenzini, 1991).

The research illustrates that obtaining a college degree is critical for many reasons, but that *where* the degree is obtained is of very little importance with respect to almost all of these outcomes. For example, little evidence shows that attending a more selective college confers an earnings advantage when such factors as family social class and amount of education attained are also considered (Knox and others, 1993). In addition, no evidence suggests that earnings are affected by whether students attend a 2-year or 4-year college (Pascarella and Terenzini, 1991). The type of college you choose *is* important, however, in terms of your "fit" within the institution; a good match is critical to staying in school and achieving success. Determining the best fit is the subject of the remainder of this issue of *The ERIC Review*.

Of course, not all people find that college is right for them, and many individuals are happy and successful without attending college. You need to make the right choice for yourself based on your experiences, beliefs, values, and goals. College can help you develop your knowledge, skills, attitudes, and talents; many other types of experiences can also serve this purpose, including travel, work, and service. Finally, the path to college is not a 4-year path meant only for 18-year-olds—our higher education system has many points of entry and can be accessed by individuals at all stages of their lives.

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Common Mistakes: Narrowing Your Choices Too Early

by Adrianna Kezar

As noted in the introduction, we recommend a funnel approach to making decisions about college because we believe that gathering a great deal of information about colleges, then narrowing your search based on personal characteristics and preferences, is the most systematic way to end up with a good fit between you and the institution. The process is time consuming and sometimes tedious, however, and many students try to take shortcuts that almost always fail.

Below we present some of these shortcuts and describe the dangers associated with using them. We hope this will illustrate why the funnel approach is the best method for making decisions about college.

Mistake #1: Limiting your search to institutions with which you are already familiar. Many students rely heavily on family and peers as sources for determining which colleges they should consider. Be careful—many more institutions might be a strong fit for you. Do your own research in guidebooks and on the Internet to become aware of new options. Remember, *you* will attend the college you choose, but your parents and friends won't. You need to be happy with the choice.

Mistake #2: Limiting your choice of institutions based on your standardized test score. Many students compare their standardized test scores to the average Scholastic Assessment Test scores or American College Test scores of students attending institutions and use this information to determine colleges they'll apply to. It's important to remember, however, that test scores are just one piece of information that colleges use to evaluate students. Every campus has students who scored much higher and much lower than the average against which you're measuring yourself.

Mistake #3: Limiting your search to colleges you think you can afford. Many financial aid options are available, including grants, scholarships, loans, and work-study arrangements. High school counselors, publications,

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and Internet resources can provide you with information about paying for college. (See the Library section on page 50 for some resources.) First determine the schools you are interested in attending, then try to determine ways to fund your choice.

Mistake #4: Choosing a college because your friend or girlfriend/boyfriend is going there. Just because a campus is a strong match for one of your friends or loved ones does not mean that it is the best choice for you. Did they do their homework in exploring colleges? Be sure you do.

Mistake #5: Making your decision based on the rumor mill. Many students form judgments based on the impressions of their peers. The rumor mill can be a great source of inside information as long as you seek many different people's opinions so that you can evaluate the institution from several different perspectives. Don't make a major life decision based on one person's opinion.

Mistake #6: Making your decision based on false assumptions. Peers, family members, and others may be sharing inaccurate information, such as the commonly held—but inaccurate—belief that a student's learning and development depend on the selectivity of the school. It is important to read widely and to try to get the most accurate information possible in order to make a sound decision.

Which Is the Right Path?

by Adrianna Kezar

Choosing the right path to college can be very difficult because there are so many different options and so many factors to consider. The most important criterion for making a sound decision is knowing yourself: what you value, what you like, what makes you happy, and what frustrates you. The book *College Admissions: A Crash Course for Panicked Parents* (Rubenstine and Dalby, 1994) has several very helpful self-assessment surveys. You may wish to conduct a complete self-assessment with a guidance counselor (see sidebar, "The View from the Guidance Counselor's Office," on page 8), a private college consultant, or on your own with a book like *College Admissions*.

The questions below and in the sidebar will help you start thinking about your preferences. Consider the following questions at several points during the college planning process—as you begin planning in your sophomore or junior year of high school, again during the summer between your junior and senior years of high school as you begin to finalize the number of colleges to which you are applying, and as you make your final decision. Your answers will aid you in focusing on institutional types presented in Section 2 of this issue: Gathering Information and Narrowing Your Choices.

Goals

- Why are you going to college? Is your priority to start a career? To become more well-rounded? To learn specific skills such as communication?

Values

- Is religion important to your value system?
- How important is being part of a close community?

Learning Style

- What is your preferred way of learning? Do you prefer lectures, small group discussions, active learning through projects or work, computer learning, or individualized learning?

Interests

- How do you spend your free time? Do you enjoy doing community service, exploring or participating in sports or the arts, surfing the Internet, reading, and/or other activities?

Relationships

- Are role models of your own ethnicity/race, gender, or religion important to you?
- Do you want to develop personal relationships with faculty members and be given the opportunity to work with them on projects and research?

Thinking about "Fit"

Your answers to these questions and those in the sidebar can help guide you to an institution that suits you well. However, keep the following points in mind as you consider institutional fit. First, you will grow during your college years, and your initial fit with an institution may change as you develop. Second, especially in large institutions, the abundance of different communities may make it difficult to identify a particular group with which to compare your own values and beliefs, because these communities may vary by department or program or from residence hall to residence hall. Third, fit does not mean acculturation or adopting cultural values that are

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The View from the Guidance Counselor's Office

The college search is a process of elimination. Whether the search is done with the assistance of a counselor, a parent, a teacher, or by the student alone, it involves the identification of criteria that are important to the student and the application of those parameters to the list of colleges. With more than 2,000 four-year institutions to consider, not to mention community and junior colleges and vocational and technical institutions, students have to engage in some self-evaluation to set guidelines and to give focus to the search.

Below are six simple questions for college-bound students to consider. Answering any or all of these questions will help students narrow their college search by identifying which characteristics are important to them.

- What program of study do you plan to pursue?
- What type of institution (for example, a 2-year or 4-year college) do you think is right for you?
- What size institution do you want to attend?
- What kind of location do you prefer—urban, suburban, or rural?
- How far from home do you want your college to be?
- Are there certain activities in which you plan to participate in college?

Each time one of these questions is answered, students will eliminate a group of colleges from their list of colleges to consider. The idea is to progress to where a small group of institutions, perhaps between 6 and 10, remains on the list. At this point, the serious investigation can begin, with the eventual aim of narrowing the list even further to between three and six colleges to which applications for admission can be submitted.

One item not addressed in the six questions is cost. Given the differences in cost between public and private institutions, plus the role that financial aid can play, students should not eliminate a college from their list in the early stages because of price. Focusing on expense too soon might remove a college—one that might actually prove to be affordable in the final analysis—from consideration.

Establishing some criteria at the beginning of the college search process will help students focus their thoughts and develop a clearer set of objectives for their postsecondary educational experience.

—by Mark Milroy, *Chief Officer for Programs and Services, National Association for College Admission Counseling, Alexandria, Virginia*

not your own. For example, African-American students do not need to adopt a white culture to be successful; perseverance and some social support can help minority students succeed in environments where the majority of the students are from different cultures. (Morning, 1991).

First-Generation College Students

First-generation college students (people whose parents did not attend college) may have a more difficult time adjusting to college because they often do not have a clear picture of what college life will be like and may not have understanding people with whom to discuss their experiences. If you're a first-generation college student, it is particularly important that you ask the right questions of yourself and that you think about these questions as you review materials about colleges so that you can make a more informed decision. Furthermore, it is especially important for first-generation college students to meet other students from backgrounds similar to theirs so that they can have a support group (Bonifacio and Sinatra, 1991). (For more information about first-generation students, see "Making the Grade: Help and Hope for the First-Generation College Student" on page 13.)

One Final Reminder

Finding a school that suits you right from the start is important. Although transferring to another institution is always an option, students who transfer between 4-year institutions are less likely to go on to get their degrees. Transfers also appear to be related to lower occupational status and earnings (Pascarella and Terenzini, 1991). This does not mean that you should stay at an institution you don't like, but it does mean that your choice is important and has implications for your future. Make sure you ask yourself the right questions!

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Adult Students and the College Experience

by Sandra Kerka

Adults over the age of 25 now make up at least 50 percent of overall higher education enrollments (Aslanian, 1996). "Nontraditional" students (older, part time, financially independent) are heavily represented in 2-year colleges and their numbers are increasing in 4-year institutions, where they made up 39 percent of the enrollment in 1992 (Horn and Carroll, 1996). Adults over 40 are the fastest growing segment of the higher education population, making up 5.5 percent of enrollment in 1970 and 11.2 percent in 1993 (O'Brien and Merisotis, 1996).

So if you are an adult who is considering going to college for the first time, or going back for more training, you should know that you are not alone! For most people, life no longer follows a linear path—education, work, retirement—so you may find yourself going back to school for various types of education and training over the course of your lifetime.

This issue of *The ERIC Review* focuses on traditional-age students. Although some of the advice may be helpful to you, your perspectives on the issues presented may be somewhat different. In addition, you have other concerns that most 17- to 22-year-olds do not. For example, most adults in college work full time and attend school part time, tend to get better grades, are less likely to receive financial aid, take longer to complete programs, and are less likely to earn degrees within 5 years (Horn and Carroll, 1996; O'Brien and Merisotis, 1996). The vast majority (80 to 90 percent) are motivated by career-related concerns: They want either to update skills in their current jobs or to change jobs or careers (Aslanian, 1996; "College Identifies, Meets Needs of Older Students," 1996). Some may already have a degree but want to pursue graduate study or attend a community college for refresher courses. A "trigger" or life event such as divorce, job loss, or children growing up often spurs the decision to go to school (Aslanian, 1996).

Adults typically finance college with personal income and savings, employer reimbursement plans, grants, and loans. Some financial aid, including that provided by the federal government, is available to older students, but adults' eligibility may be hindered because they study part time, have higher incomes, and have such extra costs as transportation and child care that are not taken into consideration by financial aid providers.

Other ways in which older students may differ from traditional-age students include the following (Brown, 1996):

- Past negative school experiences and lack of confidence in their ability to return to study even if they have achieved professional success.
- The difficult balance of work, family, and education, including both child and elder care responsibilities.
- Time: They don't think they'll have any.
- Money: They don't think they'll find any.
- Fear: They're afraid they won't succeed.

For adults, social and academic integration (discussed in "Tips for Being Successful on Your Path: Don't Get Tripped Up!" on page 46) has a different meaning. Adults do not live on campus; they tend to participate more in their community than on campus, and they have stronger ties to career fields and communities than to academic culture. Although they are interested in contact with faculty and students and participation in college activities (Hagedorn, 1993), their life circumstances may be a significant obstacle. For adults, *integration* may be better defined as determining how to integrate the pursuit of education into their lives.

The demands of such external factors as jobs, family, and finances make it very important that you find an institution that fits you and your circumstances. Here are some points to consider in finding your path.

- Does the institution have admission and academic counselors for adult students (O'Brien and Merisotis, 1996)?
- Do counselors take a comprehensive look at educational, personal, financial, and work-related circumstances and needs (Brown, 1996)?
- Are standardized test scores required for admission? Could a portfolio of skills and experience be considered in admission decisions (O'Brien and Merisotis, 1996)?
- Are services and classes offered at convenient times and places (for example, preadmission information sessions, phone or computer registration, short courses, use of the Internet/World Wide Web to deliver information and courses)? (See "College Identifies, Meets Needs of Older Students," 1996.)
- Are the available career counseling and job placement services appropriate for adults at various stages of their lives and careers?
- Does the institution offer innovative programs such as distance learning, accelerated study, weekend college, external degrees, and credit for prior experience and learning (Green, 1996)?
- Does student orientation address adult issues, such as short- and long-term goals and balancing work, family, and school (O'Brien and Merisotis, 1996)?
- Are the key characteristics of effective adult learning environments present? Do faculty treat adult students as experienced peers? Is self-directed learning encouraged? Is the pace challenging without being overwhelming? Is active student involvement fostered? Do faculty and staff accept and respond to student feedback (Billington, 1996)?
- How easy or difficult is it to leave a program temporarily and then return if life circumstances should require it?
- Are adult students mainstreamed into the campus culture?

Bentley (1995) offers some dos and don'ts for the older student:

DO

- Use a wide variety of information sources: libraries, local college guidance centers, outplacement

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counseling (for employees who have lost their jobs due to downsizing), and the Internet.

- Consider completing general education courses at a community college to save money and get started in a comfortable environment.
- Investigate the possibility of obtaining college credit for life experience to save money by not having to take all the courses required.
- Prepare to negotiate the best deal with the college's financial aid officer.
- Apply for federal financial aid. The form is free. When completed it is used to determine your "amount of need" and may assist you in getting state- or school-level assistance if you are ineligible for federal assistance.

DON'T

- Assume that only good test-takers can get into school.
- Assume that financial support is available only to full-time traditional students.
- Increase your debt beyond your comfort level just to obtain a degree.
- Rely on myths about college selection, admission, or financial aid. Do the research and consult with professional counselors.

There is strength in numbers. O'Brien and Merisotis (1996) note that increased emphasis on lifelong learning, the need for retraining, and continued high enrollments of older students will transform delivery methods and financial aid practices in higher education. Whatever path you choose, your presence on campus can help shape higher education for the next generation.

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Women and the Path to College

by Pamela Haag

Editor's note: Although colleges and universities are working hard to develop environments that are inclusive to all people, higher education has a history of exclusion that cannot be overlooked. Until the 1960s, college campuses were mostly segregated by race; at the turn of the century, women comprised less than 10 percent of the higher education enrollment. College enrollment of women reached 40 percent in the 1930s and then declined slightly before reaching the current figure of 55 percent.

At the turn of the century, women were often taught in separate classrooms on coeducational campuses and were not encouraged to take the same courses that men were. Although women later gained greater acceptance, this legacy still has an impact. Today, many women experience little, if any, discrimination and are very happy with their college experiences. We offer this article to help women identify a range of issues that may influence their college planning.

Choosing the right college involves more than just deciding on a school's geography, size, and academic reputation. Women should also consider other issues that may have an effect on their college experience.

Consider Math, Science, and Engineering Studies

The American Association of University Women (AAUW) Educational

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Foundation's seminal research study, *The AAUW Report: How Schools Shortchange Girls* (1992), revealed that girls typically do not pursue advanced sciences in high school; do not plan careers in mathematics, science, computer science, or engineering, even when they earn good grades in these subjects; and receive less substantive instruction from teachers in these classes than boys receive.

This may not bode well for the economic future of women. College graduates in the twenty-first century will face a competitive economy that places a premium on technological and scientific expertise. Even if you end up pursuing a passion for the humanities, be sure to consider "nontraditional" college majors such as science and math. An interest in such areas could even improve a woman's college application because women are underrepresented in these fields. In 1992, only 14 percent of bachelor's degrees in engineering were earned by women.

When investigating colleges, consider the following:

- What is the proportion of female to male undergraduates in science, engineering, and math classes?
- Are there any programs—such as study groups—that support women's participation in traditionally male classroom environments?
- What career counseling services are available to place female graduates in science and engineering jobs?
- What are the graduation and employment rates for women? In what fields are most female graduates working?

Look for Mentors

Mentors can play an important role in guiding students' studies and careers and helping them overcome obstacles to their goals. Even in fields such as English where women have been overrepresented historically, you should investigate whether you'll have mentors you feel comfortable with and who have a proven commitment to *undergraduate* advising and teaching. These mentors do not have to be women; later on in college, however, you may find it beneficial to have tenured, female faculty members as mentors, especially if you're considering graduate school and would like exposure to the lifestyle of women in academia, who often balance childbearing and career responsibilities.

Questions to consider:

- How many women at the college teach science, math, and engineering? Are they tenured? If the school has a strong number of tenured female professors, many successful women will be available to be formal or informal role models and mentors.
- Are professors obligated to direct independent study with undergraduates, to hold regular office hours for students, and/or to have individual consultations with students?

Seek out a Diverse Curriculum

Students often cultivate new academic interests in college. Because it is difficult to anticipate what these interests might be, you should consider colleges that have diverse curricula, including women's studies, courses on different cultures, and courses that use an array of analytical approaches. You can find out how sex and gender themes are treated by sitting in on a class during a campus visit, perusing the course catalog, and reviewing the syllabi of selected courses. Course descriptions and syllabi are often available on the Internet as well.

Choose between a Women's College and a Coeducational Institution

For some women, this is the most basic and important consideration in college selection (see "Women's Colleges: A Legacy of High-Achieving Women" on page 23). Proponents of women's colleges argue that women who attend these schools develop leadership skills and that their graduates are more than twice as likely as female graduates of coeducational schools to earn doctoral degrees. Other studies have reported

that women's self-confidence and career ambitions decrease in coeducational colleges; however, these findings are debated among researchers, some of whom argue that gender composition is not the most crucial factor in the academic achievement of women who attend single-sex colleges. One study, for example, contends that socioeconomic class privileges explain why women at private—and generally elite—single-sex colleges might have higher achievement levels.

The National Center for Education Statistics reports that women at single-sex colleges are approximately one and a half times more likely than their counterparts at coeducational schools to major in math or science. Because much of the classroom work in engineering and the sciences is conducted in collaborative study groups, you may find it easier to get both peer and faculty feedback at a women's college. Of course, no definitive or "right" answer exists regarding the choice between single-sex and coeducational colleges; either environment may be the best choice depending on the student's preferences.

Consider the Learning Environment

Many campuses feature a competitive, independent, and traditional approach to learning; others have adopted more collaborative and supportive learning approaches. Some studies suggest that many women prefer, and perform better in, collaborative learning environments. When looking at colleges, consider your own learning preferences and characteristics. Do you prefer one-on-one interactions with faculty, small group discussions, or lectures? If you've been quiet in high school, you might want to investigate attending a college where you can join a learning community—a cohort of students taking the same cluster of classes—or a college where you can conduct original research as an undergraduate. You may well be more comfortable at a small school—one with fewer than 5,000 students—where smaller classes rather than big lectures prevail.

Ideally, your campus visit will allow you the opportunity to sit in on a class or seminar in progress. If you're able to do so, observe how female and male students participate in the class and how professors interact with them.

Investigate the Campus Atmosphere Regarding Safety for Women

Safety is an important issue to consider, especially since date rape and other sexual assaults have risen slightly during the past 5 years. When touring or interviewing at a campus, assess the school's policies toward maintaining and enforcing standards of civil, nonviolent behavior in the college community.

Consider the following questions:

- Have any violent incidents occurred that year, whether perpetrated by students, nonstudents, or groups? How have they been handled?
- Does the school have any programs that are designed to heighten awareness of sexual violence?
- Are any on-campus organizations on probation because of claims of sexual violence?
- Do you see students—particularly women—walking freely on campus at night? If not, are there shuttle buses or escort services for women students after dark?
- Does a cooperative relationship exist between campus security and the college town?

Determine the Living Arrangements and Social Life

Because so much of the collegiate experience happens outside of the formal classroom in social interactions among classmates, closely scrutinize and observe campus life—the social climate—at all of the colleges you visit.

Questions to consider:

- Do students have opportunities to live off campus? Do opportunities to live in single-sex environments exist, if that's your preference?
- Are most of the popular campus activities—sports, for example, or parties—sponsored by all-male or all-female organizations?
- How diverse are the social worlds at the school? Are campuses dominated by fraternities and sororities? Do you get a sense, in touring, that groups "stick to their own" or intermingle?

Find out What Opportunities Exist for Female Athletes

Since the passage of Title IX, women's sports programs have skyrocketed. The number of females participating in interscholastic sports has increased from 300,000 in 1972 to 2.4 million today. If you enjoy athletic competition, you should be aware of how the colleges you are considering comply with Title IX, the federal law that stipulates, among many other things, that colleges cultivate women's athletic programs. Higher education institutions can meet Title IX requirements by providing athletic opportunities to males and females substantially proportionate to their enrollments, by consistently expanding programs for the sex that is underrepresented, or by showing that they "fully and effectively" meet the needs of the underrepresented sex.

Colleges that receive federal aid and sponsor a sports program are now required to produce a yearly report, easily accessible to prospective athletes and the public, that details program expenditures, including information about recruitment and scholarships for men and women. In reviewing this publication, consider the following:

- Is the school committed to putting resources into women's sports? How? Does it offer scholarships to female athletes?

- Do the coaches and staff enjoy institutional support? Are they supported financially?
- Are women's teams competitive? You might rate the answer to this question as positive or negative depending on your level of skill and interest.
- Does the college's newspaper cover women's athletics prominently?
- Do intramural athletic opportunities exist for women?

In addition to the general questions all students should consider as they begin college planning, women should consider the issues outlined in this article to make an institutional match that will support their academic and personal growth.

Making the Grade: Help and Hope for the First-Generation College Student

by Kevin Mitchell

First-generation students—those who are the first in their families to attend college—are an increasingly significant force on today's campuses. Although few schools keep precise enrollment statistics on first-generation students, there is general agreement that the numbers of these students are growing as more jobs are requiring a college degree. Many first-generation students are members of ethnic minority groups and come from working-class families (Padron, 1992).

Like all college students, first-generation students face greater academic and social demands in college than they did in high school. The ability to handle these new demands during the first year of college is critical to success in college and to eventual graduation (Fox and others, 1993). But many first-generation students must overcome additional obstacles on the road to a college degree.

Special Challenges Facing First-Generation Students

Many first-generation students are less prepared for college—both academically and psychologically—than students who come from college-educated families. They typically have weaker reading, math, and critical-thinking skills, as well as lower degree aspirations (Terenzini and others, 1995). Although these skill and motivational deficits can be overcome, they make the transition to college more difficult.

First-generation students may also lack important "college survival" skills in time management, budgeting, and interacting with large educational bureaucracies (Richardson and Skinner, 1992). As a result, they may find the campus educational system confusing and intimidating. This situation makes effective communication with college administration, registration, and other offices—a necessity for any successful college student—difficult at best.

One of the greatest challenges confronting first-generation students is the ability to function successfully in two very different worlds—that of their friends and family and that of their college community. All college students have to perform this balancing act, but it is particularly difficult for first-generation students for two reasons. First, many come from low-income families, so they are often forced to divide their time between school and work. Although many students work during their college years, first-generation students work out of necessity and tend to spend more time working and less time studying than their classmates (Terenzini and others, 1995).

Second, family tension is often generated when children choose a path in life that deviates significantly from that of their parents. Accordingly, first-generation students may find their academic efforts met with resistance from parents and siblings who fail to understand the demands or rewards of college. This lack of support can range from failing to provide students with a special place for studying at home to openly criticizing their "excessive" time commitment to coursework at the expense of family responsibilities (Padron, 1992). In addition, these students may find that their new philosophies, interests, or manner of dress or speech are met with similar resistance or resentment by friends who chose not to go to college. This lack of support—a form of peer pressure—puts first-generation students in the difficult position of having to renegotiate relationships with friends and relatives or face an uncomfortable separation from the familiar (London, 1992).

Strategies for Supporting First-Generation Students

Colleges and universities can help recruit and retain first-generation students through specialized outreach,

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tutoring, and mentoring programs. For example, some community colleges target students who have high test scores and grade point averages but who have expressed little interest in pursuing a college education (Padron, 1992).

Bridge programs—which involve the cooperative efforts of high schools, community colleges, and universities—are an effective way of helping first-generation students overcome any academic deficiencies they may have. A number of these programs provide high school students with the opportunity to take one or more of their classes on a college campus. Others are designed as basic skills courses to be taken during the summer immediately preceding the students' first year of college. Many schools also provide extended support services through the first year of college and beyond. Students who need extra academic help are often required to complete special courses designed to improve their basic math and English skills. These classes usually include tutoring and comprehensive counseling services to further assist students in the college adjustment process.

One of the most popular methods used to help all students make a smooth transition to college is the orientation course. Normally required of all first-year students, orientation programs can vary widely from school to school, but all are designed to introduce students to some of the practical skills necessary for success and to expose them to the college's programs, procedures, and support services. It is particularly important for first-generation students—who often enter college with false expectations about its academic demands—to complete an orientation course that not only addresses social adjustment issues, but also outlines the level of student effort required for success in college.

What can parents do to help a first-generation student succeed? First, they should begin to familiarize themselves with the academic and social demands of higher education as their children approach high school. By having a better understanding of college life, parents will be in a better position to anticipate their children's questions, understand their concerns, and respond to their changing needs. The following publications provide a good starting point for interested parents:

- *Making the Most of Your Child's Education, Volume III: What About College? Book I: Preparing for College*, 1993 (ED 359 291). Although targeted at Hispanic parents, this booklet is an excellent source of information for the parents of any prospective first-generation student. Available free from the Aspira Association at 202–835–3600.
- *Preparing Your Child for College: A Resource Book for Parents, 1996–1997 Edition* (ED 394 120). This booklet focuses on the college planning process using a clear, easy-to-read, question-and-answer format. It is equally appropriate for parents of first-generation students and parents who are college-educated. Available free from 1–800–USA–LEARN and online at (*http://www.ed.gov/pubs/Prepare/*).

Second, parents can find out about the availability of bridge programs and other services designed to help first-generation students make a smooth transition to college. High school guidance counselors are usually aware of local community college programs and they can make recommendations based on a student's needs. Another good source of information, of course, is the college or university itself. Contact student affairs, academic support services, student services, or admissions offices to obtain information about special tutoring, counseling, mentoring, peer support, and other programs for first-generation students. Additionally, most schools have an orientation office that can provide program details, including the availability of any special services for first-generation students. Some colleges and universities also offer parent orientation courses.

Finally, parents need to be supportive. First-generation students, unfortunately, often receive less parental encouragement to pursue a college degree than students whose parents attended college (Terenzini and others, 1995). Given the additional hurdles that typical first-generation students face in college, parental support can mean the difference between success and failure.

All college students need reassurance that they can turn to their parents for advice and that this reliance is not a sign of immaturity or dependence. Although adolescents are eager to separate from their parents as they move toward adulthood, they are often uncertain about the kind of ongoing relationship they want with their parents or the form it will eventually take. The important point to remember is that a healthy student-parent relationship is positively linked to student adjustment, academic achievement, and emotional well-being (Austin, 1993).

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College Planning for Students with Disabilities

excerpted from How To Choose a College: Guide for the Student with a Disability

I have a disability. Where should I go to college? This question is misdirected; it makes the assumption that the decision to attend a particular institution should be based on one's disability. That puts the emphasis on your status as "disabled," rather than on your status as an academically qualified, potentially successful student who happens to have a disability. Do not allow your disability to become the major influence in your life; keep it in proper perspective. If you are to choose an institution where you can be successful and happy, you must consider any disability-related special needs you may have, but those needs are just one part of a much larger list of considerations to be made.

Twenty years ago, a student with a disability would have needed to ask, "Where can I go to school if I have a disability?" At that time, few colleges and universities were wheelchair accessible, only a limited number were willing and able to provide interpreters, and academic accommodations for students with learning disabilities were unheard of. Thanks to a series of legal rulings and to many students with disabilities who preceded you through the educational ranks and who set the stage for your participation, accommodations for students with disabilities are relatively commonplace today.

The How, Where, and What of Choosing a College

How do you decide among the many colleges and universities available to you? Your first step in choosing a college is to ask yourself some basic questions about how prepared you are academically and socially for the challenges that college has to offer, where you want to study, and what you want to study. Going to college is a major step in your life. It means achieving new levels of responsibility and independence. Some high school seniors are more ready than others to manage that independence; disability may or may not have anything to do with preparedness.

Specific Support Services

After you've thought about your goals, you'll be ready to think about your disability-related needs and the support services that may be necessary for you to be successful in college. The first step is to track down someone on each campus you are interested in who can answer the very specific questions you need to ask. Don't assume that the folks in the admission office, or even in the general counseling office, are going to have the information you seek. They may think they know what is available on campus, but the only way you can be sure that what you need will be there when you need it is to talk specifically to the individual(s) who will be providing these support services to you when you arrive on campus.

Most campuses will give you an opportunity to identify yourself as a student with a disability at some point during the admission process. There may be a place to check on the college application or in the information concerning housing, athletic events, and so forth that is sent to you after your acceptance. If the college invites you to identify yourself as a student with a disability and in need of accommodation, it is to your advantage to respond as quickly and completely as possible. **By law, your disability cannot be used to discriminate against you in the admission process.**

In high school, the school district is responsible for providing any and all

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How To Choose a College: Guide for the Student with a Disability, Fifth Edition, 1997, *was written by the Association on Higher Education and Disability and the HEATH Resource Center of the American Council of Education. The HEATH Resource Center operates the U.S. Department of Education's national clearinghouse on postsecondary education for individuals with disabilities. You can contact the HEATH Resource Center at One Dupont Circle, Suite 800, Washington, DC 20036–1193; (202) 939–9320; (http://www. ACENET.edu).*

support services you need to encourage your full participation in the educational process. Colleges and universities **do not** have the same obligation. They are required, by law, to provide any reasonable accommodations necessary for you to have equal access to the educational opportunities and services available to your nondisabled peers **if you request the accommodations**. Colleges and universities are under no obligation to seek you out to see if there is something you may need.

The people responsible for providing support services to students with disabilities on college campuses have different titles and work out of different offices from campus to campus. Ask for the Office of Disability Services or the Office for Special Needs. If those inquiries do not succeed in helping you find the right person, contact the college's 504 Compliance Officer through the college's Affirmative Action Office and ask that individual for a referral to the appropriate office for support services.

Colleges and universities will vary in how much support they provide, but seldom will the level of support equal that which you received in high school. Once you have identified the individual(s) responsible for support services on the campus, the questions you ask should be very specific and based on the needs you have. Listed below are examples of questions for people with various disabilities. Put together your own list of things to inquire about before you make contact with the individual(s). Remember, you are free to ask about both the accommodations that you must have and the things that would be nice to have available.

Actually visiting the campus of your choice before planning to attend it is a good idea for all students but should be considered an absolute must for students with mobility impairments. The only way that you can be sure if the degree of accessibility available meets the degree of accessibility you need is to go and see it for yourself. If possible, schedule enough time to eat a meal, sit in on a class, and perhaps stay overnight.

A student who uses a wheelchair might ask:

- Are there any buildings on campus that are not wheelchair accessible? Are the campus bookstore, the main library, and the student union wheelchair accessible? How about the counseling center, the sports arena, and health services?
- Is there adapted housing available through the residence hall system? What kind of adaptations have been made? Are all of the public areas of the residence halls wheelchair accessible?
- What kind of accommodations for taking tests are available to me if my disability interferes with my ability to write quickly or in small spaces?
- I need a personal care assistant to help me in the mornings and evenings. Who is responsible for recruiting, training, and paying for the attendant?

A student with a hearing impairment might ask:

- How do I make arrangements for notetakers in my classes? Who does the scheduling? How are notetakers recruited? How are they paid?
- Who makes arrangements for interpreters? Are interpreters available for non-classroom activities? Will I get priority (early) registration for classes?
- Is there a TT available to me on campus? Can I call your office on my TT if I need a message relayed to a processor on campus?

As noted in the ERIC Digest, *College Planning for Students with Learning Disabilities* (1989), by the ERIC Clearinghouse on Disabilities and Gifted Education (ED 314 917), a student with a learning disability might ask:

- Who counsels students with learning disabilities during registration, orientation, and course selection?
- What kind of tutoring is available, and who does it—peers or staff?
- Can students with learning disabilities take a lighter course load and more time to graduate?

A Final Word

Any important decision cannot be based on a single factor. Thus, to decide on a college solely on the basis of your disability is to do yourself a great disservice. Your abilities, interests, and individuality should be major considerations in choosing a college. There are many quality schools that have solid academic programs and good supportive services. Your task is to plan ahead, ask questions, seek out the information you need, and make a wise choice. A successful choice results from knowing yourself, reviewing your options, and putting it all together in a final selection that is right for you.

Colleges and universities may offer specific scholarships for students with disabilities. Students should contact the financial aid office at each school to which they are applying to find out about such disability-related aid. In addition, students and counselors may consult the *Directory of College Facilities and Services for People with Disabilities*, Fourth Edition, 1996. The 423-page directory is published by The Oryx Press, 4041 North Central at Indian School Road, Suite 700, Phoenix, AZ 85012–3397; 1–800–279–6799. It contains an index of institutions that offer special financial aid programs.

SECTION 2

Gathering Information and Narrowing Your Choices

The College Landscape

U.S. students have a wide range of options available for postsecondary education. Community colleges, for example, may offer vocational training or the first 2 years of education in the liberal arts. A university typically offers a full undergraduate course of study leading to a bachelor's degree as well as professional and graduate programs leading to advanced degrees. Vocational and technical institutions offer training programs to prepare students for specific careers.

Postsecondary institutions may be public, private nonprofit, or private proprietary (run privately for a profit). The college landscape includes institutions with a wide range of missions and institutions designed to serve specific groups. In this section, representatives of several types of postsecondary institutions describe the unique and noteworthy features of their institutions. Reviewing their discussions will help you become aware of the full range of choices for higher education.

Please note that one type of institution—the religious college—is not represented in this section because there is no umbrella organization that represents all faiths and denominations. Rather than select a representative of one faith or denomination to represent all religious colleges, we have opted to encourage readers interested in this option to contact their religious leaders for details.

Community Colleges Today—Bringing You into the Future

by Norma G. Kent, *Director of Communications, American Association of Community Colleges*

Students who are looking for a promising future in a well-paid profession need look no further than their nearby community college. Today, community colleges offer preparation for most of the top 10 "hot jobs" identified by the U.S. Bureau of Labor Statistics (see box), and they do so at an average cost thousands of dollars below that of 4-year colleges and universities.

Community colleges are a uniquely American invention, and they are known for a flexible but no-nonsense approach to higher education. President Clinton paid these institutions the highest compliment when he noted that other businesses "ought to work like a giant community college." Recently, he acknowledged their important role by proposing a tax credit, which Congress passed, that will make the first 2 years of college available to virtually every citizen. This tax credit effectively makes a community college education the new standard for an educated American society. (See "New Tax Credits and Deductions for Higher Education," page 37.)

Community colleges are no longer the "junior partner" in higher education. After three decades of rapid and consistent growth, they now enroll almost one-half of all undergraduates who attend college in this country. Their ability to adjust to new technologies and the changing demands of the workplace has made them the first choice both for many young students and for an increasing number of older students who return to college to update skills or to pursue entirely new careers.

Fastest Growing Jobs, 1994–2005

Systems analysts
Computer engineers
Occupational therapists
Physical therapists
Special education teachers
Paralegals
Medical records technicians
Dental hygienists
Respiratory therapists
Radiologic technologists and technicians

Source: Bureau of Labor Statistics

What will you find at your community college? You may not find ivy-covered walls, but you will find a friendly atmosphere and a world of opportunity. Classes are small, typically averaging no more than 20 students per class. Scheduling is flexible, with classes available during the day; at night; on weekends; and, increasingly, via distance-learning technologies that allow students to learn at home, at work, or at other off-campus sites.

Instructors at community colleges are distinguished by their commitment to teaching rather than by their pursuit of independent research, publication, or other academic activities. Because community colleges are so closely allied with the communities they serve, many faculty members are recruited from local business and industry to ensure that faculty is knowledgeable about the needs and requirements of "real-world" jobs. Most community colleges also work with business advisory groups from their service area to ensure that the career education offered reflects current business practices and technologies.

For students planning to pursue a bachelor's or other advanced degree, the community college is an excellent place to start. Community colleges cultivate strong ties with 4-year colleges and universities to help students make a successful transition to senior institutions. An increasing number of community colleges even offer guarantees that credits earned at the 2-year institution will be fully acceptable upon transfer and that career skills learned in college will be directly applicable to on-the-job requirements.

Providing equal opportunity to learn for every student—no matter what level of academic achievement he or she has reached—is the cornerstone of the community college philosophy, but such an approach in no way diminishes the quality of the learning experience. Repeated studies confirm that students who begin their college studies at a community college and go on to transfer perform as well in key areas of study as individuals who start at 4-year colleges or universities.

As much as the student who is *starting out*, community colleges welcome the student who may be *starting over*. In fact, the changing nature of our society, a workplace in transition, and continually evolving technologies point to a future in which lifelong learning—individuals coming back to college for recurring intervals of education and training—will be the norm for many of us.

Community colleges offer locations within a few minutes' drive of 90 percent of the U.S. population, as well as reasonable cost and a variety of solid learning opportunities. Thus community colleges could well become the *real* information superhighway, by offering a pathway to success for students of all ages and interests.

Community College Checklist

Two-year colleges offer comprehensive programs that lead to an associate degree or a certificate in a specified field. Courses of study include a liberal arts/transfer curriculum that provides the courses for the first 2 years leading to a baccalaureate degree; occupational-technical programs that prepare students for employment or assist those already employed to upgrade their skills; developmental education programs that help students improve their basic academic skills; and courses that respond to individuals' and communities' social, intellectual, and recreational interests.

What To Consider When Deciding Whether To Attend a Community College

- **Do you know what your academic or career goals are, or are you unsure what course of study you want to pursue?** Community colleges have the resources to help students identify areas of career interest and set realistic goals. You can explore a variety of associate degree, college-transfer, or technical-occupational programs, as well as a variety of nondegree programs.
- **Can you afford to attend a 4-year college all 4 years?** Tuition and fees at community colleges are lower than at 4-year colleges and universities. According to the National Center for Education Statistics, the estimated average cost of tuition and fees at public 2-year colleges nationwide for the 1995–96 school year was $1,245, compared to an estimated average of $2,848 at 4-year colleges. If cost is a concern, you can attend your local community college for the first 2 years and then transfer to a 4-year college to complete your baccalaureate degree.
- **Are you interested in finding employment in a specialized, technical field that may not require a 4-year degree?** You can pursue a course of study that leads to the associate degree in such technical fields as business, health occupations, and trade and industry education. You can decide to pursue a 4-year degree after you have earned the associate degree. Two-year colleges often have complementary arrangements with 4-year institutions that allow their programs to correspond.
- **Do you need to master basic academic skills before you can pursue college coursework?** For students who want to pursue college coursework but who lack the basic reading, writing, mathematics, or science skills necessary to take college-level courses, the community college offers developmental education classes. These classes are designed to prepare students to pursue college coursework by strengthening these skills.
- **Do you have family and employment responsibilities to maintain while you work toward a college degree?** Many 2-year college students maintain full- or part-time employment while they earn their degrees. To meet the needs of their students, most community colleges offer classes at night or on weekends. Of course, the length of time it takes to obtain an associate degree depends on the courseload students maintain: The fewer credits they earn per term, the longer it takes to earn a degree.
- **Do you want to attend a college that is conveniently located and community-oriented?** Most public, 2-year colleges are community-based and accessible to all residents in the surrounding area. As a result, community colleges have strong ties to the communities they serve. Many community colleges have established links with high schools and community groups, particularly through school-to-work programs, and many have made cooperative arrangements with employers that can provide job opportunities and experience for students both before and after they graduate.
- **Do you want to learn in an environment in which teaching is of primary importance?** Faculty members at community colleges are known for their excellent teaching and for attending to students and their individual academic needs, regardless of age, sex, race, current job status, or previous academic preparation.

—by Tronie Rifken, *Assistant Director, ERIC Clearinghouse for Community Colleges, UCLA*

State and Land-Grant Universities: Opportunities and Choices

from the National Association of State Universities and Land-Grant Colleges

America's state and land-grant universities offer an environment that can match the needs and interests of every type of student. As the people's universities, these institutions offer access and opportunity to millions of Americans—opening doors to a better life for many who might otherwise be denied a college education. Since 1862, the nation's state and land-grant universities have played a pivotal role in the development of our democratic society. These institutions are committed to providing students with challenging opportunities that enrich both their professional and personal lives and to offering a curriculum that provides both a liberal arts *and* a practical education. In short, our public universities are producing the leaders of tomorrow.

Access and Opportunity for All

- A state and land-grant university exists in every state and territory of the United States, as well as in the District of Columbia.
- In 1993–94, public universities enrolled one-half of all full-time students and produced two-thirds of all bachelor's degrees.
- Approximately one-half of the members of the U.S. Congress in the recent past and one-half of the chief executive officers of America's 500 largest corporations were educated at public universities.

A Diverse Campus Culture

Diversity in every aspect of student life—social, cultural, and academic—is one of the greatest strengths of public universities. Students at these institutions can:

- Choose from a broad spectrum of elective courses while focusing on one major discipline.
- Make friends with people from all over the United States and around the world in a stimulating environment that offers abundant opportunities to explore other cultures and broaden intellectual horizons.
- Select from a variety of living arrangements—dormitories; off-campus apartments; group houses; fraternities and sororities; and even such unique situations as "language houses," in which everyone speaks a foreign language and lives and learns in that culture.
- Participate in an array of social activities and situations, including clubs, choruses, theaters, bands, school newspapers, radio broadcasting, concerts, dances, and both intercollegiate and intramural sports.

More Value for Money Spent

Low tuition costs are a major benefit of attending a public college or university, and approximately one-half of the students at public universities receive some financial aid. A variety of assistance is available, including state and private scholarships, grants, loans, internships, and work-study programs.

- The average in-state resident undergraduate tuition (including fees) at 4-year colleges and universities in the fall of 1996 was $2,966 per year.
- The average nonresident undergraduate tuition (including fees) at 4-year colleges and universities in the fall of 1996 was $8,253—a more economical cost than that of most private institutions.

Faculty Leaders in Every Field

From Fulbright Scholars and Nobel Prize winners to accomplished artists and renowned writers, public university faculty are leaders in their disciplines. Full-time faculty spend the majority of their time teaching or engaged in research and scholarship activities. Research conducted at state and land-grant universities has touched the lives of almost every American by improving the environment, creating cleaner energy resources, reducing pollution, and promoting better health and human development. Many of these research projects are translated into the classroom environment, giving undergraduate students opportunities to work with great scholars.

Public university faculty are highly qualified:

- In 1992, 7 in 10 (71 percent) public university faculty members had attained a doctoral degree.
- Almost three-fifths (58 percent) of the institutions with the largest number of Fulbright Scholars in 1994–95 were public institutions.
- About one-half of the 60 new members elected to the National Academy of Sciences in 1996 hailed from public universities.
- In 1992, almost one in four (23 percent) faculty members were women; approximately one in eight (12 percent) were persons of color.

State-of-the-Art Resources

Public university campuses offer students high-quality resources and facilities for both learning and socializing. On the typical campus, students have access to large libraries and many major research centers; computers; modern athletic fields and gymnasiums; laboratories with cutting-edge equipment; student union buildings with eateries, meeting rooms, and lounges; and art galleries, theaters, and concert halls.

A Commitment to Building a Better Society

Public universities are committed to working with urban and rural, local and regional, state and national leaders in every field to help build a better society for America and the world.

This commitment leads public higher education to prepare students for jobs that fill the needs of society. At state and land-grant universities, students become familiar with the professional world, gain valuable hands-on experience, and enhance their knowledge of specific fields through internships and community work.

For More Information

To learn more about the opportunities offered at state and land-grant institutions, visit the National Association of State Universities and Land-Grant Colleges' Internet site at *(http://www.nasulgc.nche.edu).*

The Benefits of the Private, Liberal Arts College Experience

by Alan Splete, *President, The Council of Independent Colleges*

What does former President Reagan have in common with TV journalist Lesley Stahl and musician Al Jarreau? Each graduated from a small, independent, liberal arts college. So did Paul Newman, Geraldine Ferraro, Senator John Glenn, and many other distinguished personalities who attribute much of their success later in life to their small-college education and experience.

Dear Prospective Student:

As you consider where to pursue your education, take a good look at private, liberal arts colleges and universities. You'll find them in cities, suburbs, and small towns across the country. Here are 10 ways that private colleges can help you succeed in life:

1. **Size makes a difference.** Private, liberal arts colleges are noticeably smaller than many other colleges; average enrollment is approximately 1,800. Most have 3,000 or fewer full-time undergraduate students (a few have more than 5,000). Because of their size, small colleges offer many benefits that you may not find at larger universities.

   The most important benefit is personal attention. You'll be a person at a small college—not a number. You'll get to know your professors, and they'll get to know you. You'll find campus administrators who care about your progress and can help you succeed. And as far as making friends, it's possible you'll get to know almost every other student on campus. A small college is a true community.

2. **Teaching comes first.** Part of the personal attention at a private college is found in the classroom, where top-quality teaching is a hallmark. You'll find challenging courses in a wide variety of fields, taught by professors who, although they may conduct research, are there first and foremost because they love teaching. They'll encourage you to push yourself to new heights of academic achievement.

3. **The lifelong power of the liberal arts.** Private, liberal arts colleges stress the liberal arts as the backbone of a solid education. Within the liberal arts context, students are taught to think critically, to solve problems, and to write well and express themselves clearly. Liberal arts courses foster skills and values that endure long after college.

   Our world is changing faster than ever. In many fields, today's "hot" skills will be obsolete tomorrow. That's why so many students and parents look for an education that has staying power. The liberal arts experience has that kind of staying power—it will prepare you for all kinds of opportunities in our rapidly changing world.

   Employers know that liberal arts graduates bring polished communication skills, leadership, and creativity to the workplace. Indeed, business executives across the nation find liberal arts graduates exceptionally attractive candidates for employment. Corporate recruiters know that the liberal arts background provides built-in flexibility to grow in and adapt to a rapidly changing business scene.

4. **Career preparation.** Liberal arts colleges don't ignore professional training. Most provide students with the opportunity to mix professional training in a specific field with liberal arts courses. Students can also pick up practical experience through internships. The result is that you can graduate from a private college with an unbeatable combination of a core of liberal arts courses and preparation in a special field.

5. **Quality and educational excellence.** Private colleges have historically been recognized for their educational quality. Indeed, their programs have been the models and standards for many other higher education institutions. Private colleges consistently rule the lists of "best colleges." Twenty-one of the 32 college-educated presidents of the United States graduated from independent colleges and universities. In one recent year, 22 of the 32 American students selected to receive Rhodes Scholarships attended independent colleges and universities.

6. **Private colleges are affordable.** Independent colleges are more affordable than you might think. The average tuition at private colleges is $12,800; approximately one-third of private college tuitions are under $8,000. Most private colleges offer significant financial aid packages. Talk to college financial aid officers. They're experts on scholarship aid and can tell you about untapped sources of financial assistance at their schools. There's no question that a high-quality college education today is expensive, but when you weigh all the benefits of a private college education, you'll find that it truly is an investment that will pay dividends over your entire lifetime.
7. **A complete education for a well-rounded you.** At a private, liberal arts college, you'll be treated not just as a student, but as a person. You'll be challenged intellectually and your emotional, social, physical, moral, and spiritual growth will also be encouraged. Some of this growth comes from coursework; much of it, however, comes from outside the classroom.
8. **A chance to serve and learn.** Mounting evidence suggests that what students learn outside the classroom is as important as, if not more important than, what they learn in class. Apart from on-campus extracurricular activities, many students learn valuable life lessons from volunteer work in the community. Because these institutions typically have close ties to their communities, students have many options for performing volunteer work. You'll also find that private colleges offer numerous internships, work-study programs, and other ways for you to gain practical work experience.
9. **Support for first-year students.** Most private colleges have special programs to help first-year students make the transition from high school to college life and academics. The philosophy behind these programs is to get students off to a good start during their first year, because a strong start can have a positive effect on the rest of the college experience.
10. **Support for adult students.** Private colleges know that today's students are often busy adults, with families, jobs, and other responsibilities apart from college. Adult students, too, find success at private colleges and universities. Weekend and evening classes, satellite campuses, professors committed to teaching, small classes, top-notch curricula—all these strengths make private colleges a good bet for adults.

Former President Ronald Reagan once said, "Everything good in my life began at Eureka College," his alma mater in Illinois. As you explore the many different options for your education, consider carefully the private, liberal arts college and the high-quality education and tremendous opportunities for personal growth it offers.

The Case for All-Black Colleges

by William H. Gray, III, *President and CEO of the College Fund/UNCF*

For the past 150 years, historically black colleges and universities have prepared African Americans for the economic, social, and political challenges of America. The majority of African Americans who hold Ph.D. degrees, medical degrees, law degrees, federal judgeships, and officer rank in the U.S. military did their undergraduate work at these institutions. Every year about one-third of all African Americans who get a college degree graduate from these schools, even though they enroll only 16 percent of all African-American college students.

Graduates of these colleges and universities are among the most distinguished Americans and include such familiar names as the Rev. Martin Luther King, Jr., Supreme Court Justice Thurgood Marshall, former Virginia governor Douglas Wilder, opera diva Leontyne Price, former U.S. Ambassador to the United Nations Andrew Young, filmmaker Spike Lee, actor Samuel L. Jackson, former Secretary of Health and Human Services Louis Sullivan, Director of the Centers for Disease Control David Satcher, U.S. Air Force General Chappie James, and astronaut Ronald McNair. But their graduates are not only the famous: They are business leaders, school teachers, doctors, lawyers, civil servants, elected officials, poets, and artists who enrich the lives of America's cities and towns by their contributions to all our prosperity and well-being.

Throughout their history, historically black colleges and universities (HBCUs) have prepared leaders for America through a quality education at an affordable cost in a nurturing environment. The 103 HBCUs vary in geography, type, size, and curricula just as white universities and colleges do. There are 53 private and 50 public HBCUs, 14 2-year colleges, and 3 professional schools. Included in this array of institutions are single-sex, coeducational, church-related, research, liberal arts, small, large, undergraduate only, undergraduate and graduate, predominantly African-

American, and predominantly white. That's right—predominantly white. West Virginia State, Bluefield State, and Kentucky State, all established as colleges to educate blacks only, are now predominantly white in student enrollment and faculty.

In fact, HBCUs as a whole are more integrated and diverse racially than the rest of America's colleges and universities. Eleven percent of their students are white, compared with the 6 percent of students at other colleges who are black. About 20 percent of faculty at these schools are white, while only 2 percent of faculty at other colleges are black. And more than 10 percent of the administrators are white, compared with the paltry 1.5 percent of administrators at other colleges who are African American. HBCUs are more integrated racially and have always been.

These amazingly productive educational institutions trace their origins to the nineteenth century. Prior to the end of legal slavery, approximately 4.4 million African Americans lived in the United States; 90 percent were slaves. They were barred from the basic rights of education and citizenship, and in many places educating slaves was illegal because whites feared it would foster slave revolt.

Three HBCUs were founded in Ohio and Pennsylvania prior to the Civil War: Wilberforce, Cheyney, and Lincoln. However, the majority of HBCUs were established after the Civil War in the South where America's black population was concentrated. In the states that made up the old Confederacy, private black colleges were founded by ex-slaves, free blacks, religious and missionary organizations, and philanthropic organizations with abolitionists roots. Their initial mission was to improve the condition of the newly freed slaves through education.

Following the Supreme Court ruling in *Plessy* v. *Ferguson* in 1896, the doctrine of "separate but equal" became the basis for the establishment of a new group—the public HBCUs. By 1927 the U.S. Bureau of Education reported that 77 African-American institutions in the United States offered college-level degree programs. Although a small number of African Americans attended other colleges in the North, Midwest, and West, the HBCUs were the educational institutions that provided the vast majority of America's college-trained African Americans. In fact, 8,000 HBCU graduates served as commissioned officers, pilots, and nurses in World War II.

This remained the case until the Supreme Court reversed *Plessy* v. *Ferguson* in 1954 with its *Brown* v. *Board of Education* decision. However, even after court rulings and congressional legislation, by the mid-1970s, three-quarters of African-American college students were still attending HBCUs. The next 20 years saw a major shift as traditionally white colleges began to recruit, accept, and support students from the black community. Thus, by the 1990s, HBCUs, which represented only 3 percent of the nation's colleges and universities, enrolled only 16 percent of all African-American college students.

Recently, the enrollments of HBCUs have grown significantly above the national average. This can be attributed to several factors. First, African-American student enrollment is up at all colleges and universities due to higher high school completion rates and African Americans' increasing recognition of the importance of a college education. Recent data show that African-American youths believe that a college education is important for economic mobility, and new census figures state that a college education does help to overcome the "race gap" in income—the median income of African Americans with a college degree is 92 percent of that of white college graduates. Newly released figures also show that African-American high school completion rates hit an all-time high of 73 percent, compared with 81 percent for white Americans.

Thus, it is not surprising that approximately 300,000 students are now attending HBCUs (this includes non-black students). In addition, African-American students at other colleges and universities are at an all-time high of nearly 1.4 million.

Secondly, the growth rate of HBCUs has outdistanced the national rate because they are educational bargains for a community that is overwhelmingly low income. With the average African-American family income at $32,826, access to higher education is usually determined by cost. Although many colleges and universities have attempted to address this issue through special scholarships and government student loans, the fact is that there are not enough resources to meet the demand. With the ever-rising cost of higher education, African Americans will increasingly be attracted to the affordable, high-quality education offered by HBCUs. A recent analysis by Harold Wenglinsky of the Educational Testing Service shows that the average 4-year HBCU student pays 58 percent less tuition than the average 4-year student at another institution. The cost factor is also one of the leading reasons why increasing numbers of white, Hispanic, and Asian students are attending HBCUs.

Thirdly, HBCUs are centers of excellence with unique capabilities to address African-American needs. Of the 20 colleges that graduate the most African-American students who go on to earn Ph.Ds, 9 of the top 10 are HBCUs. While only 16 percent of African Americans attend HBCUs, 45 percent of recent African-American Ph.Ds received their undergraduate degrees at HBCUs. The leading four colleges in America placing African Americans into medical schools are HBCUs—Xavier, Howard, Spelman, and Morehouse. When this is combined with the fact that over one-half of all African-American professionals are graduates of HBCUs, then, increasingly, young African Americans will be drawn to these centers of affordable higher educational excellence where

they can find role models, a nonhostile and nurturing environment, professors who expect them to succeed and achieve academic excellence, and where the president and professors know them by name—and sometimes have even memorized their parents' telephone numbers.

Indeed, it is in such environments that HBCUs do their transformational work. These institutions have proved themselves capable of taking students who have received modest or inadequate secondary education—or those whose aptitude was not discovered using traditional assessment methods like the SAT or ACT tests—and producing talented, contributing citizens. They know how to take diamonds in the rough and make them more brilliant, as Harvard and Stanford do. But they also know how to do something other colleges cannot do. They know how to take a lump of coal and turn it into a diamond by mentoring, expecting excellence, and hands-on teaching by faculty who have been there and care.

That is why these valuable educational institutions are still important, not just to African Americans, but to all Americans. Demographers predict that in the twenty-first century, 85 percent of all new workers will be women, minorities, and new immigrants. By the year 2020, one-third of this nation will be made up of African Americans and Hispanic Americans. By 2050, more than one-half of all Americans will be the people we call minorities today.

If America is to prosper in the global marketplace and maintain our economic strength, we will have to rely on the skills and productivity of that twenty-first century workforce. Thus we need to support the educational institutions that know how to take not just the best and brightest, but also the talented and intelligent, and give them the skills America will need.

Since 1835, these colleges and universities have persevered through difficult and challenging times to prepare leaders for America. Just as the religious and ethnic colleges of early immigrants—Georgetown, Yeshiva, Brigham Young—provided doorways for their rejected communities, HBCUs continue to serve all of us. They have a vital role to play. From their halls have come—and will continue to come—the business persons, physicians, scientists, engineers, architects, teachers, public servants, and artists we need to be strong in the twenty-first century.

In 1900, 1,700 Negroes attended college.

In 1944, 40,000 colored people attended college.

In 1970, 522,000 blacks attended college.

In 1992, 1,393,000 African Americans attended college.

As Maya Angelou has said, "Still I rise."

Women's Colleges: A Legacy of High-Achieving Women

by Jadwiga S. Sebrechts, *President, Women's College Coalition*

The United States is home to 82 women's colleges today, located in 25 states and concentrated heavily in Massachusetts, Pennsylvania, Virginia, and Georgia. Approximately one-third are historically Catholic, approximately one-third are affiliated with another religious tradition, and one-third are independent. Three women's colleges are part of the public higher education system in their state and two are historically black institutions. These diverse colleges share a single overarching mission, however: They exist to promote the educational achievement of women.

Women's colleges are setting application records as they develop the talents and leadership potential of their students. Consider the following statistics, keeping in mind that only 2.5 percent of all women who attended U.S. colleges and universities during the last 30 years attended women's colleges:

- One-third of the female members of the boards of directors of the 1992 *Fortune* 1000 companies are graduates of women's colleges.
- On a *Business Week* list of the 50 women who are rising stars in corporate America, 15 (30 percent) earned their baccalaureate degree from a women's college. That number is six times greater than one would expect given the percentage of women who graduate from women's colleges.
- On the 1991 *Black Enterprise* list of the 20 most powerful black women in corporate America, 20 percent were women's college graduates.
- One in seven women cabinet members in state government graduated from a women's college.
- Graduates of women's colleges are more than twice as likely as graduates of coeducational colleges to receive doctoral degrees. They are also more likely to enter medical school or earn doctorates in the natural sciences and other traditionally male fields.

These are impressive statistics as measured in the traditional terms of outputs and career achievements. In her 1990 study, Daryl Smith of the Claremont Graduate School concluded that women's college students also

derived greater satisfaction than women in coeducational schools in their perceived changes in skills and abilities, their educational aspirations, their intellectual and personal growth, their extracurricular opportunities, and their educational attainment. Moreover, Smith's data suggest that women's colleges provide an environment that fosters a high degree of academic involvement, which in turn leads to greater student satisfaction.

Numerous studies offer evidence of differing learning strategies used by men and women in the classroom and suggest that women prefer cooperative, positive approaches to learning. Catherine Krupnick of the Harvard School of Education and Myra and David Sadker of The American University's School of Education have published compelling studies of the differences between men and women in classroom discussions. Men command approximately 2.5 times more class time responding to questions than women do in the same classroom, both because they respond instantly and are called upon more frequently and because they receive very different responses from the teacher when they make a mistake. Female students are most often asked to respond to factual questions, requiring little, if any, analytic reasoning, and they are corrected by the teacher when they make an error. Their male counterparts are asked more complex questions requiring critical judgment, and when they make a mistake, they are encouraged to try to figure out the correct response.

Student performance—and the expectations that the classroom authorities have of student performance in the classroom—contribute to the development of the ego and self-esteem. It is not surprising, therefore, that self-esteem assessments of women at women's colleges have produced substantially more positive results than those at coeducational institutions.

Women's colleges are more prolific in their production of science and math graduates, too. At some women's colleges, between 25 and 40 percent of students major in mathematics, the natural sciences, and economics. In fact, the percentage of majors in economics, math, and the life sciences is higher in women's colleges today than it is for men in coeducational institutions, and substantially higher than for women in those institutions. These statistics, like many of the others, can be attributed to the distinct environmental characteristics of women's colleges as well as the teaching strategies that are employed. The "development of talent" approach, rather than the more prevalent "weeding out" approach, is practiced at women's colleges. This makes a great difference, especially in male-dominated disciplines. Mentoring is an important component of teaching, not just an occasional informal offering. Role models, often cited as crucial to success by minority groups and women, are readily available at women's institutions. Moreover, 100 percent of the student leadership opportunities are available to women. These training grounds encourage the development of skills that are easily transferable into postgraduate life and achievement.

Whether one chooses a women's college because of its academic standards, its capacity to empower and encourage in particular career paths, or its women-centered priorities, one gets a taste of being in charge. And that lesson lasts a lifetime.

Tribal Colleges: Tradition, Heritage, and Community

by Gerald Carty Monette, *President, American Indian Higher Education Consortium and Turtle Mountain Community College, Belcourt, North Dakota*

Dear Prospective Student:

The tribal college movement began more than 25 years ago for a very simple reason: the near complete failure of the higher education system to meet the needs of, or even include, American Indians. In the late 1960s, more than one-half of all American Indian high school students dropped out of school; of the students who did graduate, only 15 percent went on to college and far fewer earned a degree. Statistics like these brought tribal leaders to the realization that only through local, culturally based education could many American Indians succeed in higher education. The financial and psychological costs of sending students from their reservations to colleges that were not prepared to meet or comprehend the basic needs of American Indian students were too high.

Diné Community College, formerly known as Navajo Community College in Tsaile, Arizona, was founded in 1969 as the nation's first tribal college. By 1972, six tribal colleges had been established on Indian lands, and together they formed the American Indian Higher Education Consortium (AIHEC). Today, AIHEC is a cooperatively sponsored effort on the part of 31 member institutions in the United States and Canada, and enrolls more than 25,000 students from 250 federally recognized tribes. Most tribal colleges are located on remote Indian reservations in the Great Plains and southwestern United States, although some tribal colleges can be found in or near large urban centers.

Together the tribal colleges represent the most significant and successful development in American Indian educational history, promoting achievement among students who may otherwise never know educational success. Tribal colleges have unmatched success in terms of student retention, matriculation, ongoing education rates, and job placement. All AIHEC institutions offer 2-year degrees and some now offer 4-year and graduate degrees; AIHEC's tribal colleges are also accredited by mainstream accreditation associations.

Tribal colleges provide academic, vocational, and technical programs similar to those at mainstream institutions, as well as tribal language, culture, and history courses. In addition, tribal colleges provide services above and beyond those provided by most other postsecondary institutions. Since their inception, the tribal colleges have helped address the problems and challenges of our welfare system. All tribal colleges provide GED, basic remedial, and college preparatory courses. Tribal colleges also offer certificate and degree programs in fields that are specifically designed to help build and strengthen local reservation economies, from agriculture and natural resources at Salish Kootenai College in Pablo, Montana, to computer and engineering courses at D-Q University in Davis, California. The tribal college curriculum was developed from its mission: to help move American Indian people toward self-sufficiency and help make them productive, tax-paying members of American society.

One of AIHEC's great strengths is the unity and spirit of tribal college students, as exemplified by the AIHEC Student Congress. Established in 1986, this student-run organization represents the 25,000 students who are enrolled in the tribal colleges. The purpose of the Student Congress is to foster and promote student involvement in all aspects of American Indian education and tribal community development. Leadership skills training, student government organization, and intercollegiate activities are the key mechanisms through which the Student Congress helps motivate and nurture future tribal leaders.

For more information, including a complete listing of the tribal colleges, please contact AIHEC at 703–838–0400.

Career Colleges: Preparing for the Job Market

by Kevin Mitchell, *ACCESS ERIC*

Are you a high school student who's not sure whether you want to attend college? Perhaps you're not interested in liberal arts classes or a traditional postsecondary education but would rather pursue training in a technical or other specialized field. If this sounds like you, then you're not alone. According to a 1993 report by the U.S. General Accounting Office, about one-half of the nation's high school students participate in the vocational-technical (vo-tech) programs that are offered in 11,600 high schools around the country. Typically, these students find the curriculum's combination of hands-on training and classroom instruction attractive because it prepares them for employment immediately upon graduation from high school. But vo-tech isn't what it used to be.

The New Economy

Rapid changes in technology and the marketplace have changed vo-tech, both in terms of its definition and with respect to the demand for its graduates and the relative skill levels expected of them. No longer confined to programs in plumbing, carpentry, auto mechanics, or electronics, vo-tech institutions now train students for careers in computer programming, biomedical technology, respiratory therapy, radiological technology, computer systems technology, the paralegal field, drafting, graphic arts, computer-aided design, mortuary science, and a host of other specialized occupations.

Moreover, the demand for trained workers to fill positions in these fields continues to grow, in part because computer technology has become an integral part of almost every industry and occupation, from office systems and graphic design to auto mechanics and health services. As a result of new technologies, many of America's fastest growing jobs now call for a period of postsecondary technical education that emphasizes mathematics, science, and communication skills. In contrast, only 20 percent of today's jobs require a 4-year college degree (American Vocational Association, 1994).

Career Colleges

Career colleges provide students with the opportunity to acquire the skills they need to move into well-paying technical careers. Although the programs take a variety of forms and names—including vo-tech, tech prep, and career education—they often involve 2 years of postsecondary study that builds on 2 years of vo-tech training in high school. Career college programs, like their high school counterparts, emphasize a practical, hands-on approach to learning. Courses are taught by professionals from business and industry who are in touch with the current trends in their respective fields, and students solve real-world problems in simulated work settings.

Bruce Leftwich, Vice President, Career College Association, contributed background material for this article.

Choosing a School

Before choosing a school, a student must first determine his or her occupation of interest. This process actually begins in high school when students participate in school-to-work opportunities or elect to pursue a vocational-education curriculum. If technical programs are not available, students may have an opportunity to attend a secondary vo-tech center while continuing to take academic classes at their regular high schools. More than 1,300 of these centers exist around the country.

After they graduate from high school, students should carefully investigate the options that are available to them for additional technical education in light of their personal educational goals. Vocational programs—once the exclusive domain of career colleges—are increasingly offered at 2-year community colleges. Conversely, students may find that some career colleges include academic classes in their curricula. In addition to investigating program requirements, students should also determine the school's status with respect to state licensing, accreditation, facilities, placement assistance, tuition, and financial aid. Most of this information can be found in the school's catalog.

For Further Information

To find out more about technical careers, students can contact the Career College Association (CCA), an association of more than 750 technical, medical, business, and specialized postsecondary educational institutions, at 202–336–6700. To find out about obtaining a license in a particular field, students should contact the education department in their state. To find out whether the career college they are considering is accredited, students can contact the Accrediting Commission of Career Schools and Colleges of Technology at 703–247–4533 and the Accrediting Council for Independent Colleges and Schools at 202–336–6780.

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At the Fork in the Path: Some Guidance from the Research

by Adrianna Kezar

Now that you've read about the experience of attending different types of colleges, how can you put this information to work for you? How will the type of institution you select affect your experience? What does the research say about the effect of various types of postsecondary institutions on such student outcomes as learning, social and political development, and philosophy of life?

Your choice of college will have an impact on your college experience and, to a much lesser degree, your outcomes, including learning and career opportunities. A recent study provides support for the idea that all individuals learn differently and that different environments provide positive learning experiences for different students (Ratcliff, 1995). Your task is to identify which environment you learn best in.

Your own motivation will also affect your experience and outcomes. Indeed, most research illustrates that the impact of different institutional types is indirect; your interactions with other students and with faculty and your involvement in campus activities have a more significant effect on outcomes than the type of institution does. However, certain institutions may be better at supporting high-quality interactions and campus involvement than others.

As Pascarella and Terenzini (1991) note, "The impact of college is not simply the result of what a college does for or to a student; rather, the impact is a result of the extent to which an individual student exploits the people, programs, facilities, opportunities, and experiences that the college makes available. Students themselves bear a major responsibility for the impact of their own college experience" (page 611).

Furthermore, colleges are in flux, experimenting with changes. Many women's colleges, large state institutions, and historically black colleges and universities (HBCUs), for example, are reexamining the goals and experiences they make available for students. You may attend a small school because you want intimate experiences with faculty, only to discover that your friend at a large,

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state institution has more personal experiences with faculty members because your small school is research oriented and the larger campus just launched a new initiative to help faculty establish close relationships with students.

The experience and outcomes of a college education also differ by the type of major that a student chooses (Astin, 1993). Your experiences as an engineering major may be very different from the experiences of an art history major on the same campus. Engineering students at UCLA, Cuyahoga Community College, and Virginia Tech may all have similar experiences, regardless of the differing institutional types. In fact, you may have more in common academically with someone in your major who attends another type of institution than with someone at your own institution who is pursuing a different major. However, the manner in which you develop as a whole person (socially, politically, and spiritually) will most likely differ to some degree based on whether you choose to go, for example, to Virginia Tech or to Morehouse College. And factors such as excessive work obligations, too much television watching, and overindulgence in alcohol can have a negative effect on your experience, regardless of the type of school you attend.

These caveats aside, the available research offers some insight into the various factors that will influence your college experience. Some factors are typically more strongly associated with one type of institution than another. This article focuses on two important outcomes of the college experience—student development (how much learning and growth take place) and student satisfaction (how happy students say they are with their college experience).

Faculty and Peer Interaction

Research tells us that college students' cognitive and academic gains are enhanced by significant interaction with peers and faculty. Indeed, the amount and quality of interaction among faculty and peers appear to have one of the strongest impacts on student development. The structure of the curriculum and the types of classes offered appear to have a lesser impact (Astin, 1993). These results suggest that attending smaller institutions—or larger institutions that offer some sort of cohort or learning community—is critical. Also, the faculty's teaching styles—including clarity of presentation and organization of class—appear to have a much more significant impact on outcomes than the actual content. It is important for most students, therefore, to attend an institution that has made teaching a priority, one that places a strong emphasis on developing faculty members as instructors or is trying to use new forms of teaching such as cooperative or collaborative learning, service learning, or technology. On a related note, institutions that assess faculty through portfolios (typically small, private institutions) tend to have teachers who are rated as more effective than their counterparts at institutions that do not use this method (Astin, 1993).

In institutions in which faculty tend to have a strong research orientation, student development and outcomes are less strong than in institutions where faculty focus on students. Faculty with a research orientation tend to be at larger institutions that have large graduate programs, and they depend more on teaching assistants for teaching and advising (Astin, 1993). The institutions that typically offer a strong research orientation and a weak student orientation are major public universities. A student focus is more prevalent at smaller institutions, including private institutions with limited resources. A limited number of selective, private colleges have both student and research orientations.

As you are selecting a college, keep in mind that a strong research orientation is usually associated with less emphasis on student development and undergraduate education in general. However, the landscape has changed slightly since some of this research was released (to some degree as a result of it). As noted in "How Colleges Are Changing" (see page 29), large, public universities are now attempting to focus more on student learning, student development, and undergraduate education.

Living Arrangements

Campuses with residential components—dormitories or other housing arrangements that allow students to live on campus—have a positive impact on student development because living on campus maximizes opportunities for social, cultural, and extracurricular involvement (Pascarella and Terenzini, 1991). Although it is not necessary to live on campus, you should ask the admissions office of the colleges to which you apply about the type of arrangements they have for ensuring contact and community among students. Although peer communities are more prevalent at small, private, residential colleges, some large, public institutions and community colleges have been adopting new structures to supplement residence hall living. Recognizing that many students cannot or choose not to live on campus, these institutions are trying to build community through such means as freshman interest groups, student cohorts, and undergraduate research programs.

Student Satisfaction

Research suggests that several factors influence students' satisfaction with college—that is, their judgment about how happy they are with their experience. One of the strongest determinants of satisfaction is leaving home to attend college (Astin, 1993). One reason for this is that students who leave home tend to become more involved in their campuses, and involvement is highly correlated with satisfaction. The satisfaction of racial and ethnic minority students is not, however, linked as strongly to leaving home.

Important institutional factors that correlate with student satisfaction are an emphasis on diversity, a minority

or Third World course requirement, interdisciplinary courses, faculty who have a positive attitude toward general education, the college's emphasis on support services, and time spent with faculty members outside class (Astin, 1993; Pascarella and Terenzini, 1991). Many other experiences that contribute to student satisfaction—including joining clubs and organizations, participating in intramural sports, and exploring a variety of course offerings—are likely to be more abundant at a larger campus. To increase the likelihood that you'll be satisfied with college, seek a campus that offers programs that interest you.

Selectivity

Will attending a highly competitive college make a difference in your future? Selectivity as a measure of quality does not appear to be related to student outcomes or development when socioeconomic status is factored out (Pascarella and Terenzini, 1991). This is extremely significant since so many students believe that institutional reputation and status is associated with learning. This appears to be a false assumption.

Size

Institutional size by itself does not appear to affect student development and change. As noted above, the impact of size is indirect: It may be manifested in the types of relationships you have with other students and faculty. What is more important than actual size is psychological size, or the "feel" of an institution. Large institutions can begin to seem more intimate when students participate in clubs and organizations, cocurricular activities, or work-study programs, or when they begin to become affiliated with a specific department (Pascarella and Terenzini, 1991).

Finding academic and social niches is very important at any institution. It's inaccurate to assume that a large institution necessarily results in a less personal experience; the quality of the experience depends on whether the institution is able to break up a large campus into subcommunities. Several institutions have been successful with this strategy, so if you are considering a large institution, be sure to ask what is done to make the environment more manageable for students (simple orientation is not enough!).

Racial and Gender Composition

The research defies the common assumption that coeducation or integration into predominantly white institutions is always best. Attending an HBCU has a modest positive impact on cognitive development and educational attainment for African-American students and a small positive impact on occupational status and on academic and social self-image for African-American women (Pascarella and Terenzini, 1991). Preliminary research on Hispanic-serving institutions (HSIs) and tribal colleges suggests that they also provide a valuable alternative—a supportive climate, mentors, and greater opportunities for involvement and feelings of integration.

There is evidence that women's colleges enhance students' socioeconomic aspirations, career attainments, and achievement of prominence in a field (Pascarella and Terenzini, 1991). Attending a women's college increases the likelihood that women will major in such traditionally male-dominated careers as engineering or the sciences. Furthermore, coeducational institutions are believed to reinforce notions that academic success is unattractive (Riordan, 1994). In other words, women tend to perform at a lower level so that they do not compete with men because smart women are stereotyped as unattractive or undesirable.

HBCUs, HSIs, tribal colleges, and women's colleges tend to offer more mentors and role models for students than traditional institutions. These types of interactions tend to increase the likelihood that students will complete their undergraduate degrees, pursue graduate and professional training, and meet with occupational success.

Two-Year and Community Colleges

Higher education research offers two important findings to guide your decision about whether a community college or 2-year institution is right for you. Most important is that where one enters college makes little difference in terms of overall outcomes once a baccalaureate degree is earned. Attending a community college for your first 2 years to save money or to be close to home will most likely have no negative effect on your later success in a career or on your ability to obtain other associated benefits from college (Pascarella and Terenzini, 1991). The value of a community college education was recently validated in a national study by the National Center on Postsecondary Teaching, Learning, and Assessment. This study found that 2- and 4-year institutions provide relatively equal cognitive gains for students after the initial year (Ratcliff, 1995). Ratcliff notes that "these similarities indicate that students who begin college at 2-year institutions do not sacrifice intellectual gains" (page 26).

It is also important to emphasize that community colleges have traditionally played an important role in providing access for students who might not otherwise pursue higher education. The low cost, open admission policies, and local facilities have supported the enrollment of underrepresented groups and nontraditional students (including working adults and mothers at home with children) who might not otherwise have enrolled in a postsecondary institution.

However, evidence suggests that students at community colleges are substantially less likely to complete a bachelor's degree and to go on to graduate or professional school. Many community colleges do have a strong emphasis on transferring and have exemplary general studies programs (see sidebar, "The Community College Transfer Function"). Others have adopted multiple missions—including, for example, vocational education,

adult education, and community education—or are underfunded, and the transfer function suffers. Students should consider the type of a degree in which they are interested and find out the specialty or focus of the community college they are considering to ensure that it will meet their goals. The research does suggest that there are risks to attending a community college, but if you are goal directed and choose carefully, a 2-year college can be a terrific option.

Summary

In summary, institutional traits and student traits combine to influence the college experience. Both advantages and disadvantages are associated with various types of colleges, and you should consider how institutional offerings, environment, and demographics will contribute to your education and development.

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The Community College Transfer Function

Community colleges serve as gateways to higher education for many students. One traditional—and important—function of community colleges is to provide students with the academic preparation they need to transfer to and succeed at a 4-year institution. In 1996 more than one-fifth (22 percent) of the nation's community college students who began their studies at a community college and completed a minimum of 12 credit units transferred to an in-state, public 4-year college or university (Cohen and Sanchez, 1996). This national transfer rate is based on calculations using the National Transfer Assembly's definition of *transfer,* established by the Center for the Study of Community Colleges at UCLA.

The 22-percent transfer rate has remained consistent since 1990, and many researchers who track the flow of community college students to 4-year colleges have come to rely on this measure as one indicator of community college outcomes. The transfer rate demonstrates that community colleges are gateways to a college degree for a sizable percentage of students.

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—by Tronie Rifken, *Assistant Director, ERIC Clearinghouse for Community Colleges, UCLA*

How Colleges Are Changing

by Adrianna Kezar

It is difficult to choose the right college without knowing what to expect from college or understanding what is happening on college campuses today. Exciting changes are taking place. Most colleges have recently revised their undergraduate education programs in some way. The following discussion of areas experiencing change provides you with a list of features you may want to research as you decide which college to attend. Because these changes are recent, many have not been incorporated into college guides, are not a part of rankings, and may not be familiar to alumni or high school counselors (though you may find them on the college's Web site or in a special brochure). If any of these innovations sound interesting, make sure that the institutions you're considering offer them.

Undergraduate Research

Many universities have begun offering undergraduates the opportunity to participate in research projects that, until recently, were reserved for graduate students (Strassburger, 1995). These programs are popular because they enable students to meet and spend quality time with faculty members; they help students learn about the research process and gain research skills; and they help students decide whether they want to attend graduate school. Although these programs are becoming prominent within large, public and private research universities, many liberal arts colleges have always given students the opportunity to work on research with faculty. Remember, however, that available slots in these programs are limited at large universities; you are not guaranteed a position. Make sure to ask how many students get to participate and how they are selected.

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Education over the Internet/ Technology in the Classroom

Many campuses are now offering classes over the Internet. You may be able to take a large introductory lecture course from the comfort of your own dorm room. If the idea of having classes online interests you, make sure to ask if this is an option at the schools you're considering and, if so, which classes are available. You can also check out Yahoo's guide to America's 100 Most Wired Campuses at *(http://www3.zdnet.com/yil/content/college/intro.html)*.

Although many faculty members still teach using traditional methods, others are realizing the potential of multimedia, the World Wide Web and the Internet, and other technology-based forms of instruction. Find out how many faculty members use technology in the classroom. Remember that an understanding of technology and the Internet are important to your future in almost any career.

First-Year Seminars

A wealth of research illustrates that the first year is critical to student success, so many campuses have begun to offer first-year seminars. These seminars introduce freshmen to the goals of college; explain the meaning of liberal or general education; help students develop study and time management skills; and inform them of campus resources and services such as libraries, counseling, placement, and tutoring. Some seminars focus on academics and introduce students to the rigors of college study in a supportive environment. First-year seminars, which may be optional or required, are usually small courses for 20 to 25 students.

Community Service Learning

More institutions are beginning to acknowledge that not all students learn well from abstract contemplation and books alone. One form of experiential education is community service learning—applying coursework concepts to real-life circumstances. For example, in a social work course on poverty, you may have a project that requires you to work at a homeless shelter and witness poverty (Jacoby and others, 1996).

Many institutions with religious roots have strong, longstanding commitments to community service. Antioch College, for example, has always required work experiences (and reflection on these experiences) as part of the curriculum. Community service learning programs have become popular on many college campuses, especially with the support of President Clinton's Corporation for National Service. Roughly one-third of college campuses now offer a form of community service learning or other experiential education such as internships (Cantor, 1997). If you know you learn better by applying concepts, determine whether the campuses you are considering have this option.

Learning Communities

Learning communities are an exciting innovation in education. They are based on a curricular restructuring approach that links classes to an interdisciplinary theme and enrolls a common cohort of students (Smith, 1991). Programs vary in form and content, but they all represent an intentional restructuring of students' time and credits to foster greater intellectual connections among students, between students and faculty, and among disciplines. For example, the University of Washington's freshman interest groups (FIGs) help to make the university seem smaller and less intimidating. A FIG consists of 20 to 24 students sharing clusters of two or three courses organized around a common theme. FIG students have higher grade point averages and a lower dropout rate than non-FIG students (Tinto and Russo, 1994). Some learning communities are residential; others are virtual (linked via computers). Learning communities are more prevalent on large campuses, because there is a greater need to create smaller communities within these larger environments. If you are considering a large institution, ask about opportunities for participating in learning communities.

Interdisciplinary Programs

Programs that focus on a broad topic—for example, human development—are a current trend on many college campuses. These programs offer classes from a variety of disciplines as part of the requirements for an interdisciplinary major. They are often extremely helpful to students (and attractive to future employers) since they allow students to study an issue from the perspective of several distinct disciplines.

It is important to examine your career interests because some areas do not fit neatly into the disciplines or majors offered on some college campuses. Also, research shows that some students tend to be more comfortable and successful learning when knowledge is connected rather than fragmented—and college majors are typically divided into distinct bodies of information (Baxter-Magolda, 1993). If you feel you might benefit from an integrated approach to a broad topic, try to determine if the school offers or will support an interdisciplinary program. Some colleges, such as Brown University, have long offered interdisciplinary and more individualized study.

Quality Teaching

Many faculty members are experimenting with new ways of teaching and of improving the learning process (Murray, 1997). The research in "At the Fork in the Path: Some Guidance from the Research" (see page 26) shows how important it is to work with faculty members who teach effectively. Faculty members in all different types of institutions are experimenting with collaborative education and cooperative learning, which are forms of teaching that focus on working in groups, building knowledge and understanding together, and teaching teamwork skills. Active learning strategies that require students to participate more in the learning process than passive lecture situations do are also becoming more prevalent as research consistently

shows the positive impact of organization and structure on learning. Faculty members are also looking at new ways to assess student learning and provide useful feedback through projects and portfolios.

It is important to ascertain how important teaching and faculty training are at the institutions you're considering. How is teaching assessed and rewarded? Is a list of exemplary teachers provided? Is there a center for faculty development? If you do not find teaching emphasized in an institution's literature, on its Web site, or in conversations with alumni, then it may not be a priority on that campus. A recently released book, *Good Teaching: A Guide for Students*, described in the Library section starting on page 50, may assist you in making this assessment.

Multiculturalism/Education for All Students

Over the past two decades, higher education institutions have come to realize that they have not provided an environment inclusive to all students, faculty, and staff. Their first effort to ameliorate this condition was a commitment to recruiting greater numbers of women and underrepresented faculty and students. Simply having more members of traditionally excluded groups, however, was not sufficient to create a welcoming environment for these new groups. In response, faculty began to experiment with more inclusive teaching approaches such as collaborative learning, which encourages all students to become involved by working in groups rather than competing individually. Also, many campus curricula have been transformed to include perspectives and experiences of women and racial and ethnic minorities. Such efforts have resulted in campuses that better meet the needs of all students. (They've also raised concerns among individuals who saw no problems with the old way of doing things.)

If being in a diverse environment is important to you, try to determine what percentages of the faculty and student body are women and people of color. Some campuses with few minority faculty and students, however, are inclusive environments, so don't exclude a campus just because of its composition. Look at the curriculum (you can do this by studying the course catalog). Is there a women's studies, gay and lesbian studies, or ethnic studies department? Do other departments offer courses that examine race or gender issues? Are support services available for women, people of color, and gay and lesbian students? You should be able to answer most of these questions by looking at college brochures, course catalogs, and Web sites. The Library section on page 50 also lists several multicultural college guidebooks to provide assistance with these issues.

International or Global Education

An understanding of the world is increasingly important in almost every career. Campuses have begun efforts to ensure that students are competent in knowledge of international issues (Pickert, 1992). International or global education is addressed through a variety of methods, including foreign language or cultural course options, infusion of international issues into coursework, study abroad programs, and exchange programs. Like technology expertise, competence in the area of international issues will soon be a requirement for many careers, so it is important that you examine how the campuses you are considering offer you opportunities to develop these competencies.

Peer Teaching

Many studies have found that students learn as much or more from their peers as they do from faculty and formal classroom experience. Furthermore, teaching others is one of the best ways to learn. Many campuses provide peer-teaching opportunities, the most common of which is teaching assistantships—positions for graduate students to assist faculty in large lecture courses. Two other forms of peer teaching are available to undergraduate students: tutoring and counseling. Tutors are previously successful students who teach other students on a one-to-one basis; they are usually assigned to specific courses. Counselors are similar to tutors in that they teach on a one-to-one basis, but they teach more general skills or knowledge, such as taking notes and preparing research papers, and are not associated with particular courses. In learning communities, for example, former students often help teach later cohorts of students. Campuses with these initiatives provide a good learning environment for students as well as the opportunity for students to hone their teaching skills (Whitman, 1988).

Basic Skills

Unpracticed skills are lost quickly. Core skills such as writing and computation, if not reinforced, will deteriorate. Many campuses have put efforts into place to ensure that basic skills, such as communication, critical thinking, quantitative analysis, problem-solving, and writing, are kept current. In writing-across-the-curriculum initiatives, for example, faculty work together across different disciplines to develop students' writing skills, whether they are in a calculus, history, or biology course.

Knowledge about these new programs on college campuses will definitely make you a better consumer and will contribute to your ability to choose the right college path.

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COLLEGE PLANNING SECTION

Planning and Checklists

Planning for College: Some Issues for Students and Parents To Consider

by Jim Montague

There are more than 3,000 colleges (both 2- and 4-year) in the United States, as well as a variety of professional schools. They offer programs designed to meet the needs of a diverse group of high school graduates. The word *college* can be used loosely to describe all forms of higher education, including 2- and 4-year colleges and universities as well as trade, technical, and career schools. Some colleges are very selective; at others, the admission requirements are not nearly as difficult.

Each student enters high school with the potential to continue his or her education after graduation. Not every student will go to college, but students should be encouraged to keep their postsecondary options open. Therefore, it is important to look at areas that can affect the choices a student will have once he or she graduates from high school, including academic planning, college admission testing, the admission process, financial aid, and early financial planning.

Academic Planning

All too often, students reach their senior year of high school and discover that the choices they've made in school have effectively limited their postsecondary options. To go on to college, these individuals will need remedial coursework. Having to take remedial or additional preparatory courses usually does not appeal to recent high school graduates—in fact, it may discourage them from furthering their education.

If students want to keep their postsecondary options open, they must become familiar with the academic requirements of most colleges. Some colleges require coursework beyond the minimum requirements, however, so taking additional courses will make more options available to students. The minimum coursework required of high school students for admission to most colleges is as follows:

- **Language Arts.** Colleges require 4 years of English. Fortunately, this is also a requirement for high school graduation. If a student can do work in more challenging classes, such as an honors course or one specifically labeled college prep, he or she should be encouraged to do so.
- **Mathematics.** If ever there were a gatekeeper, mathematics is it! Students are often prevented from pursuing certain postsecondary options because they didn't take the appropriate math courses. The minimum requirement for most colleges is 3 years of math, including Algebra I and II and geometry. Students should also take advanced algebra, trigonometry, precalculus, and/or calculus, if these courses are offered and students are likely to do reasonably well in them.
- **Science.** Most colleges look for at least 3 years of science, including 2 years with laboratory experience. Once again, taking courses beyond the minimum requirements will give students more options. This is especially important for students who might want to pursue further study in the sciences.
- **Social Science/History.** A minimum of 2 years of study is expected in social science or history. As is the case with English, students will satisfy the minimum college

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requirement in this area by meeting high school graduation requirements. However, students with ability and interest should certainly be encouraged to take additional classes in this area.

- **Foreign Languages.** Most colleges expect a minimum of 2 years of study in a single foreign language and prefer more than 2 years of study. Some students, such as those with serious learning disabilities, may not be able to meet this requirement, but alternatives such as waivers exist for them. In most cases, students should study a particular foreign language for as long as their abilities and available courses will allow them; they shouldn't take 1 year of French and then 1 year of Spanish or German, for example. As is the case with math, insufficient foreign language preparation can limit students' choices. On the other hand, doing advanced work in a foreign language will enable a student to consider colleges that require more than the 2-year minimum in foreign language study. If an individual takes a third, fourth, or fifth year of foreign language study in high school, he or she might satisfy the college's language requirement for graduation even before enrollment. At the very least, a student taking additional foreign language courses might be placed in an advanced class in college, reducing the number of courses he or she will be required to take.
- **Other Courses.** Finally, colleges expect students to have some exposure to fine arts and performing arts as well as an introduction to the world of computers. Once again, these courses may also be required for high school graduation.

Many students and parents wonder about how the level of high school coursework will affect college admission. In other words, is it better to have a B in an honors course or an A in a regular course? There is no exact answer, but usually a B in an honors course is preferable. However, the choice of whether to take an honors course should also be based on the student's abilities. If a student is good in math or science, he or she should take challenging courses in these areas. The same student, however, might be better off taking easier courses in subjects in which he or she isn't as strong.

In addition, students shouldn't take courses that are unreasonably difficult and in which they have no chance of succeeding. Earning a D or an F in a challenging course won't improve a student's chances of admission to college, and the frustration of being in a course that is too difficult may discourage the student from considering study beyond high school.

Some parents and students may be concerned if their high school offers only limited courses. Most colleges evaluate each applicant's transcript according to the high school courses that were available to the applicant. High schools are encouraged to give colleges a profile describing their available courses and other data about the student body and the school. College admission officers can then evaluate an applicant's record in terms of factors that he or she couldn't control. For example, a small, rural high school might not be able to offer advanced courses in many subjects. Although colleges will take this into account during their admission process, students who have the opportunity to take more advanced courses do have an advantage: They will be better prepared for college work.

College Admission Testing

Because students apply from thousands of different high schools across the country, colleges often look for a common element by which to evaluate them. As a result, most colleges require some form of standard test; this is often the Scholastic Assessment Test (SAT), which is designed to measure verbal and math reasoning skills that are developed over time and that are important in predicting success in college. Some colleges require the American College Test (ACT), and many will accept either the SAT or the ACT. Although these two tests are somewhat different, their objectives are similar—each provides an indication of a student's potential for academic success.

The foundation for success on these tests is long-term preparation. Experiences inside and outside the classroom will affect how well students perform on admission tests. Students who have strong reading habits generally do well on the verbal part of the SAT. There is no substitute for reading in this regard. Students should read regularly about a variety of subjects in different formats, such as books and newspapers. Both the SAT and the ACT contain questions and reading passages that reflect subjects that high school students are expected to have encountered, including the social sciences, humanities, literature, and the physical sciences. Students who read broadly can expect to do better on the verbal parts of these tests.

Admission tests emphasize critical reading skills and vocabulary strength. Students develop most of their vocabulary through reading, but they may also benefit from learning techniques for understanding new words. Knowing prefixes, suffixes, and root words is helpful; studying a foreign language can also help students figure out new words.

Students who want to do well on the math portions of the admission tests should prepare well in advance by taking challenging math and science courses. This will help them to develop the math reasoning and problem-solving skills that will be measured.

During the later high school years, short-term preparation is also beneficial. Students should take practice tests such as the Preliminary Scholastic Assessment Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT). This test gives students a chance to become familiar with the format and types of questions on the SAT. After they take the test, students

receive a report that shows how well they scored on each type of question. Students should use the report to pinpoint those areas in which they need to do more work. Taking the PSAT/NMSQT will also help students feel more relaxed about taking the SAT. (A similar warm-up test exists for the ACT.)

Free guides and practice tests for all three tests are provided by the test sponsors and available from any high school guidance office. Counselors and teachers are usually happy to help students to prepare.

Students might also consider taking a test preparation course. However, these coaching courses are not meant to help students develop the skills being measured; instead, they try to help students demonstrate skills they already have. Coaching courses usually try to help students keep the test in perspective so the students are more relaxed. Students learn test-taking strategies and take practice tests to become familiar with the types of questions and the format. Some students need help in these areas, and their scores may improve after a coaching course. However, some students simply have modest abilities in the areas being tested, so their test scores probably will not improve if they take a special preparation course.

Students should be aware that the SAT and the ACT have similar limitations. The best academic predictor for most college admission offices is students' high school records. In other words, high school courses and grades usually provide the most accurate and complete information available, although the admission tests do give college admission offices additional valuable information about students.

College Admission Decisions

What are colleges really looking for and how are college admission decisions made? What steps can high school students take that might improve their chances of being admitted?

Every college has a different approach to identifying and selecting qualified applicants. To make things even more confusing, each college also considers different factors when making admission decisions. At the most selective colleges, criteria might include the following:

- Courses taken
- Counselor/teacher recommendations
- Ethnicity
- Grades
- Application questions and essays
- Geographic location
- Grade point average
- Personal interview
- Alumni relationship
- Rank in class
- Activities outside the classroom
- Intended major/college applied to
- Admission test results
- Special talents and skills
- Family's ability to pay

These criteria are not arranged to reflect any specific priorities. In fact, there is no agreement about how criteria should be ranked. However, a student's high school record—both grades and courses taken—is the most important factor. Beyond that, colleges evaluate applications in very different ways, depending in large part on how selective or competitive they are. At one extreme are open admission colleges. These schools require only a high school diploma and accept students on a first-come, first-served basis. At the other extreme are very selective colleges that consider all of the factors listed earlier. These colleges admit only a small number of applicants each year. Most colleges fall somewhere in between the two extremes.

Less selective colleges focus on whether applicants meet minimum requirements and whether the college has room for more students. Grades are not overlooked, but acceptable grades may be the only requirement beyond an interest in college study. The SAT or the ACT may be required, but scores may be used for course placement rather than for admission decisions. Other factors might also be considered, but they probably would not play a major part in the decision to admit students.

More selective colleges evaluate the coursework, grades, test scores, recommendations, and essays of each student. Other criteria might be considered, but the major factor will be whether a student is deemed ready for college-level study. Students might be denied admission because of some weakness in their academic preparation, unimpressive grades or test scores, or a lack of interest in higher education.

At the most selective colleges, as many as 10 or 15 students might apply for each spot. These students usually have the necessary academic qualifications, but cannot all be accepted. Fewer than 100 colleges are this selective, but they receive a great deal of publicity. As a result, many people wrongly think that all colleges are hard to get into.

Admission officers at the most selective colleges carefully consider every aspect of a student's high school experience. Applicants must have academic strength and impressive SAT or ACT scores. However, because so many applicants are strong academically, other factors may become quite important in the admission decision.

The importance of what a student does outside of school has been exaggerated; most colleges do not consider these activities very important. Selective colleges look for students who are involved in activities outside of academics, but they are interested in applicants who have been involved in one or two areas for some time, not in students who have been involved in a large number of activities. These colleges are not trying to enroll a group of well-rounded students; they want to admit a well-rounded group of students. An applicant with experience in a specific area might have an advantage over other applicants, but it is hard to tell which areas a college might be interested in during any given year.

At the most selective colleges, a student must fill a need in the freshman class. Otherwise, he or she might not

be admitted despite an outstanding academic record. That need may be something as arbitrary as residence in a certain state, intended major, desire for housing on campus, or the ability to play a specific musical instrument in the college orchestra.

If housing is available for only three-quarters of the freshman class, then admission decisions must reflect this limitation. If a college has room for only 25 new engineering majors, but 75 new accounting majors can be accommodated, then intended majors must also be considered as admission decisions are made. On the other hand, if a college wants a geographic distribution and an ethnic balance of students, admission decisions must reflect these needs. Basically, college admission is an unpredictable process with many potential surprises.

It is important to remember that more selective does not necessarily mean better. Society often associates exclusivity with higher value; however, college is one area where that notion is wrong. Students who focus on the most selective colleges risk overlooking their personal requirements. Students should try to find colleges that provide a good match with their interests, objectives, characteristics, and needs. These colleges might be found anywhere. If students consider only the most competitive colleges that might accept them, the most appropriate possibilities may be overlooked.

For many years, admission policies reflected the belief that students who needed financial aid should be treated the same as those whose families could afford the total cost of education. A number of colleges still maintain these need-blind admission policies; after students are offered admission to this type of college, those who asked for assistance are referred to the college's financial aid office. Because financial aid is limited, however, other colleges include the family's financial situation in their admission processes. This doesn't mean that only students with enough money are admitted; most colleges accept the strongest applicants without regard for their financial need. But these colleges know they cannot satisfy the financial aid needs of all applicants. As financial aid resources begin to run out, students who do not have as much academic strength are also evaluated for their family's ability to pay. This sounds unfair, but so is accepting students without being able to give them the financial help they need. Unfortunately, students and parents have no control over the policies or resources at any college. If a student will need financial aid to attend college, he or she should consider each college's policy when deciding where to apply.

Financial Aid

There are many questions regarding the costs of financing an education, such as: What about financial aid? Is there money for everyone? If not, who will receive whatever assistance is available? Understanding the principles of financial aid and the methods used to determine a family's need for assistance may help students and parents to avoid some unpleasant surprises and to estimate the amount of aid they might reasonably expect.

Financing the cost of education is not a pleasant topic. Many parents wish that finances were not a consideration in preserving choices for their children. However, each year increasing numbers of students face limited choices due to a lack of financial planning. Parents must be honest with their children about their financial realities.

Colleges expect families to pay the cost of their children's education to the extent that they are able. However, the amount that families feel able to pay and the amount that a college determines that families can pay may differ. Financial aid is available at colleges, universities, and career schools to make up the difference between what families can afford to pay for education and the actual cost of education. The philosophy is that students whose families cannot afford the full cost of education should still have the chance to attend postsecondary schools.

Three Types of Financial Assistance

In the past, financial aid was usually synonymous with grants and scholarships, which are gifts given to deserving students. Today financial aid also includes work-study programs—which give students the chance to earn money while they are in school—and student loan programs. Grants and scholarships are still given to deserving students, but they make up only a small part of the available funds. In recent years, most aid has been in the form of student loans, but this means that many students who graduate from college will be paying off the cost of their education for many years to come. Parents are also borrowing money to meet their share of the costs, though a recently passed package of tax credits and tax deductions may ease their debt burden (see "New Tax Credits and Deductions for Higher Education" on page 37).

Most aid is given out on the basis of families' needs for assistance. Some scholarships are also provided for athletic skill, special talents, or academic accomplishments and potential. However, very few scholarships are available: Less than 5 percent of all financial aid is in the form of merit scholarships. Colleges may offer these awards to attract certain students—for instance, to recruit players for a specific college sports team. However, because the awards are well publicized, many parents and students are unrealistic about the availability of them. Athletic scholarships are actually quite rare, and only unusually gifted athletes receive them. Furthermore, most of these scholarships are given out by a small number of colleges to attract players in sports that are likely to produce significant revenues for the colleges through ticket sales.

Scholarships are also given to students with other talents. Any young person with unique skills in a specific area, such as music, might find a college that is interested in recruiting him or her through a merit-based award. Students should be aware that not

New Tax Credits and Deductions for Higher Education

On August 5, 1997, President Clinton signed both the Balanced Budget Act of 1997 and the Taxpayer Relief Act of 1997. The Taxpayer Relief Act of 1997, which provides for the HOPE Scholarship and Lifetime Learning Credit, opens the doors of college to a new generation. It is the largest investment in higher education since the G.I. Bill was established 50 years ago.

The $1,500 HOPE Scholarship will make the first 2 years of college universally available. Students in the first 2 years of college (or other eligible postsecondary training) or their parents will be eligible for a tax credit equal to 100 percent of the first $1,000 of tuition and fees and 50 percent of the second $1,000 (the amounts are indexed for inflation after 2001). The credit will be available on a per-student basis for net tuition and fees (less grant aid) paid for college enrollment after December 31, 1997. The value of the credit decreases for joint filers who earn between $80,000 and $100,000 and for single filers who earn between $40,000 and $50,000 annually (indexed after 2001). The credit can be claimed in 2 taxable years (but not beyond the year when the student completes the first 2 years of college) with respect to any individual enrolled on at least a half-time basis for any portion of the year.

The Lifetime Learning Credit will help college juniors and seniors, graduate students, and working Americans who are pursuing lifelong learning to upgrade their skills. Those students (or parents of dependent students) who have already completed the first 2 years of college or are taking classes part time to improve or upgrade their job skills will receive a 20-percent tax credit for the first $5,000 paid in tuition and fees through 2002 and for the first $10,000 thereafter. The credit is available for net tuition and fees (less grant aid) paid for postsecondary enrollment after June 30, 1998. The credit is available on a per-taxpayer (family) basis and is phased out at the same income levels as the HOPE Scholarship.

When fully phased in, 12.9 million students—5.8 million claiming the HOPE Scholarship and 7.1 million claiming the Lifetime Learning Credit—are expected to benefit each year.

Other Tax Cuts for Higher Education

Education savings accounts. For each child under age 18, families may deposit $500 per year into an Education IRA. Like traditional individual retirement accounts, earnings in an Education IRA will accumulate tax free and no taxes will be due upon withdrawal for net postsecondary expenses for tuition, fees, books, equipment, and room and board. The Education IRA is phased out for families with incomes between $150,000 and $160,000 and for single filers with incomes between $95,000 and $110,000. A taxpayer who uses tax-free distributions from an Education IRA may not, in the same year, benefit from the HOPE Scholarship or Lifetime Learning Credit.

Student loan interest deduction. Taxpayers will be allowed an above-the-line deduction (itemization not necessary) for interest paid during the first 60 months of repayment on private or government-backed loans for postsecondary education and training expenses. The maximum deduction is $1,000 in 1998, $1,500 in 1999, $2,000 in 2000, and $2,500 in 2001 and beyond. It is phased out for joint filers with incomes between $60,000 and $75,000 and for single filers with incomes between $40,000 and $55,000 (indexed after 2002). The deduction is available for loans made before or after enactment of this provision, but only to the extent that the loan is within the first 60 months of repayment. The loan amount eligible for the deduction is limited to postsecondary expenses for tuition, fees, books, equipment, and room and board.

IRA withdrawals. Taxpayers may withdraw funds without penalty from an IRA for the higher education expenses of the taxpayer, spouse, child, or grandchild. The amount that can be withdrawn without penalty is limited to net postsecondary expenses for tuition, fees, books, equipment, and room and board.

Employer-provided education benefits. Section 127 of the tax code has been extended for undergraduates for 3 years (for courses beginning prior to June 1, 2000). This provision allows workers to exclude up to $5,250 of employer-provided education benefits from their taxable income.

Community service loan forgiveness. This provision excludes from taxable income loan amounts that are forgiven by nonprofit, tax-exempt charitable or educational institutions for borrowers who take community-service jobs that address unmet needs.

Expanded benefits for prepaid tuition plans. This provision allows state-sponsored prepaid tuition plans—the earnings from which are not taxed until the time of withdrawal—to include room and board expenses for students who attend college on at least a half-time basis. Withdrawals are eligible for the HOPE Scholarship and Lifetime Learning tax credits.

—U.S. Department of Education, Office of Postsecondary Education

many of these scholarships are offered. Although the number of scholarships awarded solely for academic merit is small, it is increasing; there are probably more of these than of any other form of merit-based aid, but not as many are available as students have been led to believe.

Many colleges, including some of the most selective ones, are opposed to merit-based assistance because they believe that merit awards given for any purpose reduce the amount of money available to students who need it. Intense competition thus develops among very talented students for a limited amount of merit funds. Because many colleges do not give any kind of merit awards, it is probably not a good idea to limit a college search to schools that give these scholarships.

Calculating Financial Need

In general, private colleges are more expensive than public institutions, but because more expensive colleges tend to have more money available for financial aid, the cost of education at any college may be different from what it first appears to be. To determine a student's eligibility for need-based aid, the amount of the expected family contribution is subtracted from the total cost of attending a particular college. The total cost includes tuition and fees as well as other associated expenses, such as the cost of books and supplies. If a student plans to live on campus, the college considers room and board expenses and makes allowances for traveling home at least once during the school year. If the student will be commuting, transportation is included.

The family contribution is a combination of what parents and the student will be expected to contribute toward a college education. This amount may vary from college to college. The parents' contribution is based on the number of family members in college and allows for living expenses. However, this allowance is conservative and reflects a minimum budget for any family. As a result, it is rare to find

a family that can meet its expected contribution from only its current income; most families meet this expense through a combination of savings, current income, and loans. Of course, parents would generally prefer to avoid a loan; however, unless significant savings have been set aside, this may be unrealistic.

Income is the primary factor in establishing a family's contribution. Assets and savings are also considered, but no more than 6 percent of parents' assets are included for any given year. This acknowledges that there are many reasons to save money, and the cost of educating a child is just one of them. Parents should be honest about their ages, because the 6-percent assessment will be lower for parents who are closer to retirement age.

Some parents assume that owning a home or having significant savings makes them ineligible for financial aid; however, having home equity and money in the bank does not mean that the family will not qualify for financial assistance. In fact, home equity isn't even considered by some colleges when determining eligibility. However, other colleges will include home equity, which is one reason for the differences in the expected family contribution among colleges.

Although families are encouraged to consider college education for their children, the message that financial aid has opened the door to college for even the most disadvantaged students has resulted in many believing that they do not have to worry about paying for college. It is simply not true that once a student is accepted, everything else will fall into place. Although each college's financial aid office will attempt to meet the total need for assistance, there is no guarantee that this will be possible.

Meeting the Family Contribution

Some colleges can provide financial assistance to meet the full needs of each student, but these colleges are the exception. Some colleges meet the needs of as many students as possible; others meet a portion of the need for all students. In all cases, there is no guarantee that a student's needs will be met. This is why students should always apply to a financial safety school—that is, a less expensive alternative, such as a state college or university—as well as to more expensive private colleges.

Families with incomes below $25,000 per year can be assured that their high school children will be eligible for assistance. It is helpful if families at this income level communicate this eligibility to their children. Students may assume that given the high costs of education, their families cannot afford it. As an example for their children, parents might consider putting spare change into a coffee can labeled College Fund. The amount saved may not make much of a dent in the total cost of education, but the effort sends a powerful message to children about the importance of their educational future.

It is important for middle-income families to get a sense of where they stand in relation to other families that are applying for financial aid, because income alone can be deceiving. Family size, number of children in college, unusual expenses, and savings and other assets will also be considered. Currently 3 out of 5 families are considered to be part of the middle class. These families have annual incomes between $25,000 and $70,000. Students from families in this group usually qualify for significant financial assistance; however, in most cases, these families will also be expected to make a significant contribution. This may require a number of sacrifices and a possible change in lifestyle. For example, going out to eat may become a rare luxury, and these families should probably get accustomed to driving the same cars for a while.

Families with incomes of more than $70,000 per year make up one-fifth of the population of the United States. Because they enjoy the highest incomes, they appear to be in the best position to contribute toward the education of their children. However, many families in this group will never be able to meet the total costs for some of the most expensive colleges and will need assistance if their children are accepted at them. They will be expected to meet a very significant portion of the educational expenses, however, so these families must begin long-term financial planning as early as possible—ideally as soon as their children are born.

In general, it would be helpful if families had a better sense of what their expected contribution might be. Free worksheets and services are available to aid in these calculations. For instance, families can visit the College Board's home page on the Internet at *(http://www.collegeboard.org)*. Another useful home page with a similar free service is available at *(http://www.finaid.org)*. Taking the time to secure a realistic estimate of expected parent and student contributions will help families plan more effectively.

Early Financial Planning

If a family isn't eligible for much financial aid, what kinds of planning might be most effective in meeting the skyrocketing costs of post-secondary education? The importance of saving to meet college costs cannot be overemphasized. Unless the family is one of the few that can afford to finance a college education from current income alone, paying for college will likely involve current income, savings, and loans.

Long-term financial planning is best left to professionals, but a few general suggestions might be helpful. Because colleges expect students to make contributions from their summer earnings, students should begin saving long before they graduate from high school. Parents might also suggest that a student put aside a portion of any money received as a gift over the years in addition to part of the earnings from part-time work. Money a student earns or receives as a gift should be placed

in a savings account in the student's name. Parents should not put their own savings into the student's account because a maximum of 6 percent of parents' savings will be included in determining the family contribution, but 35 percent of the student's assets and savings are considered available for each academic year.

Parents who put their savings into their child's account because it may offer tax advantages later find that it reduces their child's eligibility for financial aid. It would not be ethical to transfer student savings to a parent's account; on the other hand, it would be foolish to have a demonstrated need for assistance lowered because parents placed savings into their child's account.

Policies and procedures change—there is no guarantee that the methods used today to determine eligibility for financial assistance will be used in the future. Also, financial aid officers at each college have some discretion, so any special circumstances should be brought to their attention. However, no allowance is made for consumer debt; owing a lot of money on credit cards won't reduce the expected family contribution.

Reputable financial planners can provide advice as families explore the various savings vehicles that are currently available. However, families should be aware of other people who are not as helpful. In recent years, a number of people have been engaged in what might accurately be described as financial aid planning. These planners typically claim that they can help families increase their eligibility for financial assistance. Many planners suggest methods that keep a family's assets hidden, which undermines a system designed to help families that really need financial aid. Because funds are limited, if one family that doesn't need aid gets it anyway, another family with a real need may not receive any financial aid.

In addition, it is unlikely that one of these types of planners will be familiar with all of the financial aid applications required by each college. Many colleges require their own forms in addition to common need-analysis forms. An asset that is hidden on these forms may reappear when the college asks for additional information. The vehicle suggested to hide assets from the financial aid office may also keep that money out of a family's hands for quite some time. If assets are frozen, a family might not be able to meet its expected contribution, which could mean that the student would not be able to attend college after all.

All in all, it is not a good idea to hire anyone who is intent on helping a family beat the system. The financial aid planner will collect a fee and will not have any liability, while the family will be taking an enormous risk.

Other Resources

This article has provided an overview of the areas that must be considered when helping students plan for the future. Several resources for additional information are listed below.

- **Guidance Counselors/Teachers.** Aside from parents, no one knows a student's educational progress or potential better than the student's teachers and counselors. Students should keep in contact with these professionals because they can provide access to current information. Guidance counselors can help students explore their choices and can help identify the most appropriate possibilities for each student. With years of experience counseling many different students, guidance professionals have a unique perspective.
- **Special Programs.** There are a variety of programs that serve disadvantaged students, including Upward Bound and Talent Search. Colleges often host such programs, which are wonderful sources of support and help to students and families.
- **Financial Aid Officers.** Because funds are limited, college financial aid officers are usually quite eager to help families with early financial planning. Families should consider attending financial aid nights at their local high schools and should look for other programs on financial aid and planning. Each state has an agency that administers state scholarships and other forms of financial aid. In recent years, these agencies have become involved in a variety of outreach programs to families. Families can contact their state higher education assistance program for additional information. Also, because financial aid procedures and policies do change, it is very important for families to have the most current information available. What is true today may not be true tomorrow.
- **Admission Counselors.** College admission counselors can also provide help. However, there are thousands of 2- and 4-year colleges and universities as well as trade, technical, and career schools, all of which have different requirements, expectations, and policies. Therefore, advice from a counselor at one college may not apply to other colleges.
- **The Internet.** For those with access to the Internet, there are a variety of informative sites available (see electronic addresses provided in the Internet Resources section of the Library on page 50). These sites provide a great deal of information about each area that could affect the options available to students.

It isn't unusual for students and parents to feel some frustration from time to time when planning for college. However, they should realize that although some of these suggestions might not help them, others might. Families should be assured that any action they take will ultimately result in more options being available to them.

College Preparation Checklist for Students

Before High School:

- ☑ Take challenging classes in English, mathematics, science, history, geography, the arts, and a foreign language.
- ☑ Develop strong study skills.
- ☑ Start thinking about which high school classes will best prepare you for college.
- ☑ If you have an opportunity to choose among high schools or among different programs within one high school, investigate the options and determine which ones will help you further your academic and career interests and will open doors to many future options.
- ☑ Investigate different ways to save money, including buying U.S. Savings Bonds, opening a savings account at a bank, and investing in mutual funds.
- ☑ Start saving for college if you haven't done so already.

During High School:

9th Grade

- ☑ Take challenging classes in English, mathematics, science, history, geography, a foreign language, government, civics, economics, and the arts.
- ☑ Get to know your career or guidance counselor and familiarize yourself with other college resources available at your school.
- ☑ Talk to adults in a variety of professions to determine what they like and dislike about their jobs and what kind of education is needed for each job.
- ☑ Continue to save for college.

10th Grade

- ☑ Take challenging classes in English, mathematics, science, history, geography, a foreign language, government, civics, economics, and the arts.
- ☑ Talk to adults in a variety of professions to determine what they like and dislike about their jobs and what kind of education is needed for each job.
- ☑ Become involved in school- or community-based activities before or after school that interest you and/or enable you to explore career interests.
- ☑ Meet with your career or guidance counselor to discuss colleges and college requirements.
- ☑ Take the Preliminary Scholastic Assessment Test/ National Merit Scholarship Qualifying Test (PSAT/ NMSQT). You must register early. If you have difficulty affording the registration fee, see your guidance counselor about getting a fee waiver.
- ☑ Take advantage of opportunities to visit colleges and talk to students.
- ☑ Continue to save for college.

11th Grade

- ☑ Take challenging classes in English, mathematics, science, history, geography, a foreign language, government, civics, economics, and the arts.
- ☑ Meet with your career or guidance counselor to discuss colleges and college requirements.
- ☑ Continue involvement in school- or community-based activities.
- ☑ Decide which colleges most interest you. Write to these schools to request information and applications for admission. Be sure to ask about special admissions requirements, financial aid, and deadlines.
- ☑ Talk to college representatives at college fairs.
- ☑ Take advantage of opportunities to visit colleges and talk to students.
- ☑ Decide whom you want to ask for recommendations, including teachers, counselors, and employers.
- ☑ Investigate the availability of financial aid from federal, state, local, and private sources. Call the Student Aid Hotline at the U.S. Department of Education (1–800–4FED–AID) for a student guide to federal financial aid. Talk to your guidance counselor for more information.
- ☑ Find out about the domestic Peace Corps—called AmeriCorps—by calling 1–800–942–2677 or TDD 1–800–833–3722. Students who perform extensive community service under this program following high school are eligible for tuition assistance later.
- ☑ Investigate the availability of scholarships provided by organizations such as corporations, labor unions, professional associations, religious organizations, and credit unions.

These checklists are from the U.S. Department of Education's Preparing Your Child for College: A Resource Book for Parents, 1996–97 Edition. *The full text of the document is available online at* (http://www.ed.gov/pubs/Prepare/) *and is also available through 1–800–USA–LEARN.*

- ☑ If applicable, go to the library and look for directories of scholarships for women, minorities, and disabled students.
- ☑ Register for and take the Scholastic Assessment Test (SAT), the American College Test (ACT), SAT Subject Tests, or any other exams required for admission to the colleges you might want to attend. If you have difficulty affording the registration fee, see your guidance counselor about getting a fee waiver.
- ☑ Continue to save for college.

12th Grade

- ☑ Take challenging classes in English, mathematics, science, history, geography, a foreign language, government, civics, economics, the arts, and advanced technologies.
- ☑ Meet with your counselor early in the year to discuss your plans.
- ☑ Complete all necessary financial aid forms. Make sure that you fill out at least one form that can be used for federal aid.
- ☑ Write to colleges to request information and applications for admission. Be sure to ask about admissions requirements, financial aid, and deadlines.
- ☑ If possible, visit the colleges that most interest you.
- ☑ Register for and take the SAT, the ACT, SAT Subject Tests, or any other exams required for admission to the colleges to which you are applying. If you have difficulty affording the registration fee, see your guidance counselor about getting a fee waiver.
- ☑ Prepare your applications carefully. Follow the instructions and pay close attention to deadlines! Be sure to ask your counselor and teachers at least 2 weeks before deadlines of the applications to submit the necessary documents (such as your transcripts and letters of recommendation) to colleges.

Financial Preparation Checklist for Parents

Before Your Child Begins High School:

- ☑ Investigate different ways to save money, including buying U.S. Savings Bonds, opening a savings account at a bank, and investing in mutual funds.
- ☑ Start saving money for your child's college education.

While Your Child Is in High School:

9th Grade

- ☑ Continue to save for your child's college education.

10th Grade

- ☑ Continue to save for your child's college education.

11th Grade

- ☑ Help your child investigate the availability of financial aid from federal, state, local, and private sources. Call the Student Aid Hotline at the U.S. Department of Education (1–800–4FED–AID) for a student guide to federal financial aid. Have your child talk to his or her guidance counselor for more information.
- ☑ Help your child investigate the availability of scholarships provided by organizations such as corporations, labor unions, professional associations, religious organizations, and credit unions.
- ☑ If applicable, go to the library with your son or daughter and look for directories on scholarships for women, minorities, and disabled students.
- ☑ Continue to save for your child's college education.

12th Grade

- ☑ Make sure that you and your child complete all necessary financial aid forms. Be sure that you complete at least one form that can be used for federal aid.
- ☑ Continue to save for your child's college education.

THE ERIC Review

SECTION 3
Making Decisions

Using Decision-Making Tools: A Compass on the Path

by Patricia Wood *and* Adrianna Kezar

Information overload! Planning for college is more complicated than ever, with information resources including the high school career and resource centers; college fairs; college guides, videotapes, brochures, and catalogs; the Internet; campus visits; and family, friends, counselors, and teachers. There are also decisions to make: how to finance college, how to prepare for standardized tests, what kind of institution to attend and where it should be situated, what living arrangements to request, and how to make the most of your college experience. Students and even parents may find themselves overwhelmed by the diverse sources of information available and the number of decisions to be made.

Research suggests that students tend to limit the number of schools and the types of information they look at to avoid information overload. Parents and guidance counselors must teach students information management strategies so that they do not prematurely exclude important information from their college search (Galotti and Mark, 1994).

This article provides an approach to using information to narrow the number of colleges you are examining and to move closer to a final decision. It will help you make the transition from the mouth of the funnel, the point in time when you are considering many options, to the neck, the time when you are closing in on a select list of institutions that will provide the best fit for you. These steps are critical. Research shows that students who reported more active information gathering were more likely to feel that they made the right decision and were more satisfied with the colleges in which they enrolled (Hossler and Foley, 1995).

> ***"Students who reported more active information gathering were more likely to feel that they made the right decision and were more satisfied with the colleges in which they enrolled."***

Strategies for Approaching the Information

Strategy #1: Use Information in Phases

In the early phases, it is helpful to talk with counselors and parents who can direct you to resources and advise you on quality of information (Galotti and Mark, 1994; Rubenstine and Dalby, 1994). College guidebooks and the Internet are particularly helpful during the early part of your junior year to help you determine the set of institutions from which you would like brochures. Making campus visits and sending e-mail messages to alumni and currently enrolled students are helpful strategies at the end of your junior year and the beginning of your senior year as you become ready to ask detailed questions.

Strategy #2: Be Careful about How You Use College Rankings and Guidebooks

Guidebooks and rankings can serve the useful function of making students aware of less visible institutions that

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might be of interest to them (Hossler and Foley, 1995; Stuart, 1995); however, many people use them to confirm decisions that they have already made. We suggest that you use rankings and guidebooks to help identify options, not to verify that the colleges you have already chosen have favorable ratings.

When you use these resources, determine how they define institutional quality. Definitions of quality are often based on questionable assumptions that place a higher premium on money or resources than on what students actually learn at the institution (Hossler and Foley, 1995). Students should not consider rankings provided in such publications as *U.S. News and World Report*, *The Gourman Report*, or *Money Magazine* as definitive resources because they have been criticized for such methodological problems as rater bias, time lag, and unclear wording (Stuart, 1995). Also be aware that guidebooks are written from different perspectives and for various purposes that shape the information you will find within (see sidebar on "Understanding College Guidebooks").

Strategy #3: Seek Alternative Perspectives

One of the biggest mistakes students make in reviewing information about colleges is to use too many of the same types of resources. College brochures and tours tend to emphasize social life, athletics, and other nonacademic issues. Students should talk with other students and alumni about a college's faculty, academic merits, library quality, and programs of interest.

Strategy #4: Make Use of Underutilized Resources, Including Campus Visits and Guidance Counselors

Students underestimate the value of campus visits as a means of gathering valuable information (Rubenstine and Dalby, 1994). Many college admission guides suggest that visits are the best way to determine college fit. Try to visit campuses during the school year when students are in class rather than during holidays or in the summer. Studies confirm that students do not use one of the most important resources they have available to them—guidance counselors. These professionals are trained to help students make college planning decisions (Galotti and Mark, 1994). Don't make this mistake—make an appointment with your guidance counselor.

Using Information To Evaluate Colleges

People tend to rely on college ranking books because few other evaluative resources exist. College brochures and Web sites, for example, do not give you the type of information necessary to evaluate a college. Don't be discouraged, though; you can and should evaluate colleges based on the factors that you value the most.

Listed below are some questions to get you started as you consider your choices. You may be able to find many of the answers from print materials.

Understanding College Guidebooks

Most college guidebooks fall into one of three general categories: basic, evaluative, or specialized (Grundt, 1992). **Basic college guides,** such as *Peterson's Guide to Four-Year Colleges* or the *College Blue Book,* offer factual information about individual colleges in an organized and objective manner. Users should consult at least two different basic college guides and compare the college data provided in order to identify any possible discrepancies in data or incomplete information in the guides (Pollock, 1992). **Evaluative guides,** such as *The Fiske Guide to Colleges* or *The Insider's Guide to the Colleges,* may rate colleges and often include student, faculty, and author comments and opinions about the schools. These guides are inherently more subjective and should be used with considerably more caution than basic college guides. **Specialized guides,** such as *Choose a Christian College* or *Peterson's Guide to Colleges with Programs for Learning-Disabled Students,* address specific concerns not covered by most basic and evaluative guides.

In its *Guide to College Guides,* the National Association for College Admission Counseling (formerly the National Association of College Admissions Counselors) recommends that prospective students ask the following questions when using a college guidebook or any rating of colleges and universities:

- If the guide does not offer a comprehensive listing, what types of institutions are included and excluded?
- What is the primary focus or objective of the rating? Is this clearly stated?
- Is the book's author qualified to recommend one institution over another? What are the author's or publisher's qualifications?
- When was the guide published? Keep in mind that some data, such as tuition costs and enrollment figures, change every year.
- Does the guide use the same standards to measure all institutions included? Do some institutions receive special treatment?
- Is the guide a serious attempt to inform prospective students or was it written primarily to entertain or present humorous aspects of various institutions?

The answers to these questions should help you evaluate the fairness and accuracy of the publication and its potential helpfulness to you.

The Library section on page 50 includes a sampling of basic, evaluative, and specialized college guides that may be helpful to prospective college students and their families in their search for information.

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—by Patricia Wood, *Database Manager, ERIC Clearinghouse on Higher Education, The George Washington University, Washington, D.C.*

Tough Questions To Ask College Admissions Representatives

About Applying

- What type of high school background are you looking for in applicants?

About Academic Programs

- What are the five strongest majors at your institution?
- How do you assign faculty advisers to students, especially those who are undecided about their majors?
- When must I choose a major?
- How does your institution place students in their freshman classes?
- What additional academic services do you offer to students (tutoring, career counseling, study skills workshops)?
- What types of internship/co-op experiences are available?
- Are programs for studying abroad available?

About Student Statistics

- What percentage of a typical freshman class actually graduates from your college?
- What percentage of a typical entering freshman class graduates in 4 years?
- How many of last year's freshman returned for their sophomore year?
- What percentage of the freshman class earned better than a 2.00 grade point average (GPA) last year?
- What is the average high school GPA of members entering the freshman class, and what is their average GPA after freshman year?
- What is the average age of your student body?
- How many students live on campus? What percentage of the total student body is residential? commuter?

About the Environment

- How are roommates selected?
- Is yours a "suitcase college," where students tend to go home on the weekends?
- How effective is your institution's honor code? What is the penalty for cheating?
- What are some causes of students being suspended or dismissed from your institution? Is there an appeals system?
- How safe is your school? Where can I obtain statistics about crimes on your campus?

—by Mark Milroy, *Chief Officer for Programs and Services, National Association for College Admission Counseling, Alexandria, Virginia*

The sidebar suggests additional questions to ask admission representatives.

- What is the faculty-to-student ratio?
- Do students work with faculty on writing, projects, and research?
- What type of mechanisms are in place for creating a small community on campus?
- How is student learning assessed?
- What is the percentage of international students, out-of-state students, and students of color? How diverse will my experience be?
- How many computers are available on campus? Do they have Internet access? Are computers in the residence halls?
- Is support for students with disabilities adequate (including compliance with the Adults with Disabilities Act and provision of necessary support services)?
- For how many years can students be assured financial assistance?
- Are resources available for placing students in jobs after graduation?

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College Selection and the Internet

by Kenneth E. Hartman

Use of technology by students in the college exploration and selection process dates back nearly three decades. During this period, students have been exposed to a growing and more sophisticated array of electronic devices, beginning with audio filmstrips and followed by local and online databases, computer laser disks, campus videos, stand-alone computer

software, CD-ROM programs, and, most recently, the Internet. While the aforementioned electronic devices have many technological differences, they all, with the exception of the Internet, have one major common denominator: They provide students with a limited and carefully edited formal source of information about a particular college. The formal information is designed primarily to inform but at the same time to convey the strengths and merits of an institution, a fact that has not gone unnoticed by today's consumer-oriented students and their parents.

In contrast to its predecessors, the Internet affords a prospective student unlimited and uncontrolled access to both formal and informal information about any institution. Student and faculty home pages and the student newspaper are examples of informal information because they include facts not provided or orchestrated by the admission office. While most admission offices are racing to place their formal information (for example, viewbook, video tour, application) on their institution's Internet location/ Web site, prospective students are beginning to surf the Internet to access both the formal and informal information. The following vignettes illustrate what is now possible for a prospective student to do on the Internet.

Kenneth E. Hartman is the Director of Admission and Guidance Services for the Middle States Regional Office of the College Board and the author of The Internet Guide for College-Bound Students. *This excerpt from a longer article that appeared in the Winter 1997 issue of* The Journal of College Admission *is reprinted with permission from the National Association for College Admission Counseling.*

Vignette #1

Mary is a high school junior interested in majoring in biology in college. After discussing her options with her school counselor, Mary decides to use the Internet to learn more about her top prospective colleges. Once on the Internet, Mary finds the home page of a major state university, goes to the biology department's Web site (where the e-mail addresses for biology faculty and for student members of the biology club are located), and conducts a random e-mail survey of matriculated biology students to ascertain their degree of satisfaction. She asks each student five questions: (1) How accessible are your instructors? (2) What percentage of your classes are taught by graduate students? (3) What opportunities for research are available to undergraduates? (4) Would you recommend the department to a prospective student? (5) What is/was the average enrollment of your freshman-year biology classes? She also evaluates faculty members by noting their stated research interests, recent publications (reading several articles that are hypertext-linked), and other professional accomplishments. Mary conducts the same Internet investigation with four other state colleges and compares the information received from students and about faculty.

Vignette #2

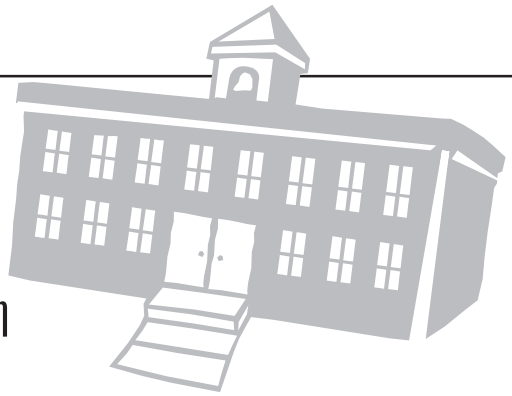
Daniel is a black student at a community college who is interested in transferring to a university. He is concerned with the racial climate on a particular college campus and, therefore, decides to use the Internet to read back issues of the student newspaper (sorting for articles/opinions on race relations on-campus), e-mail a quick questionnaire to a number of matriculated black students and black faculty (addresses found on the college's Black Student Union Web Page), e-mail recent black alumni (addresses found on the college's Black Alumni Association's Web Page), and review the hate crime statistics online at his state department of education. Daniel also e-mails his college transcripts to the university's registrar and chair of the physics department to ascertain the number of transfer credits he might receive.

Vignette #3

Catherine is a high school student who is interested in attending an Ivy League college because of the well-known and respected reputation of its faculty. The viewbook she was sent contains the names of the institution's long list of Nobel Prize winners and Fulbright Scholars, yet a quick surf on that institution's Web site revealed that none of those scholars is scheduled to teach a single undergraduate course in the upcoming fall and spring semesters. In fact, nearly half of the instructors slated to teach the freshman-level courses were either adjunct instructors, graduate students (instructor's names were found online in the graduate student directory), or were simply listed as "TBA." Catherine then used the Internet to obtain and evaluate the syllabi and required texts for five freshman-level courses (each request was e-mailed to the instructor), as well as to read the course and instructor evaluations that appeared on the personal home page of a college senior.

Vignette #4

Marti is a high school student who wants to learn all that she can about a college before making her final decision. She decides to set up a bulletin board service on her high school's Internet Web site, where any college-bound or undergraduate student in the world can share information about any college. Undergraduate students are invited to share anonymously their on-campus experiences, including amount and type of financial aid awarded each year, their SAT and GRE scores, job and graduate school prospects, and life in the residence halls. Soon Marti plans to add a real-time chat room and create a listserv that all graduating high school seniors in her state can join. The chat room enables students to communicate as if they were on the telephone, and the listserv allows them to send an e-mail message commenting on a college to students who sign on to the list with an e-mail address.



SECTION 4
Succeeding on Your Chosen Path

Tips for Being Successful on Your Path: Don't Get Tripped Up!

by Adrianna Kezar

Only 15 percent of students drop out of college because of academic failure; most leave because of personal, financial, or social problems (Tinto, 1987). Two factors—integration and involvement—can make you successful and help you to avoid the problems that lead people to stray from their path.

Integration

Students who are *integrated* socially and academically into college are happier with their experiences, tend to develop more, and have more significant learning outcomes (Astin, 1993; Tinto, 1987). At the broadest level, integration means feeling a sense of belonging with, or at home with, other people at the school, including faculty, students, and staff. Academically, it means that students feel comfortable with, and are engaged in, the learning environment, which encompasses the type of material being taught, the instructional approaches (such as small groups or large lectures and experiential or passive learning), and the relationships (impersonal or personal, competitive or supportive, and same or different gender or race) with other people in the learning environment.

Students who are not integrated socially might believe that they cannot meet people and make friends because other students have very different values. Students who are not integrated academically might find that faculty members' theoretical approaches do not match their own learning styles.

Involvement

Integration is fostered by *involvement*. Students who are actively involved in their college education have greater academic success, are more satisfied, and have higher persistence rates (that is, they stay in college longer) than those students who are less involved (Astin, 1993). Students who work on campus tend to be more involved than those who hold jobs off campus; thus, they are also more successful. Students who are involved with learning communities or freshman interest groups (which are cohorts of students who take classes together) tend to be more involved than students who attend large lecture classes and know few, if any, students in their classes (Tokuno and Campbell, 1992).

Homesickness and difficulty in making the transition from high school to college are factors that frequently contribute to students' unhappiness or their decisions to leave college. Homesickness is often the result of not feeling integrated. Ways to get involved and to become integrated include:

- Taking advantage of orientation and welcome programs.
- Encouraging your parents to attend the parent programs (especially if you are a first-generation student), which will help them learn about ways to support your achievement, retention, and satisfaction (Harmon and Rhatigan, 1990).
- Enrolling in summer bridge or preparation programs designed to help first-generation college students or students who may not be academically prepared.
- Enrolling in first-year seminars (Davis, 1992).
- Becoming part of a small community on campus, such as a club, an ethnic organization, a sorority or fraternity, a residence hall, or a major or program of study.
- Meeting with faculty during office hours.
- Taking advantage of campus resources for adjusting to college

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academic work, such as tutoring and workshops on time management or study skills.

Realistic Expectations

Uncertainty about what to expect from college is another reason that students are less successful in and less satisfied with college. Several of the suggestions listed earlier, including attending orientation and first-year seminars, can help students clarify their expectations. Be aware that many students experience the feeling of being underprepared for college work or find that the unstructured nature of college work leads them to procrastinate or to become disorganized.

College Funding

Financial difficulty is one of the other main issues that influence students' success and happiness in college. Careful planning will help you determine sources of funding (see resources listed in the Library section on page 50). You also need to be in contact with the college financial aid office to make sure your funding continues, and you should be sure not to miss any deadlines.

Integration, involvement, expectations, and funding are the critical elements in making sure that your college path is smooth. Keep them in mind as you move forward.

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Looking Back: Advice from Two Students on the Path

by Jennifer Lauver *and* Katherine Semrau

Jennifer Lauver (left) and Katherine Semrau

Other college students can be a good source of information about what to expect during your freshman year. Two students offer the following tips based on their experiences.

Deadlines

- Turn in all forms on time, from the day you apply to school until the day you graduate. Everything has a due date—financial aid forms, information cards, applications, taxes, housing leases, meal-plan decisions. Keep track of them.

Housing

- Visit the freshman dorms and ask many students their opinions. Don't necessarily judge the dorms by their appearance. Also keep in mind that college students are known to complain about everything.
- Consider your preferences for either being around a lot of people or being in a quiet dorm.

Room

- Call your roommates before you buy and send anything for your room. You don't want your room to end up with four refrigerators, four stereos, four hair dryers, and no alarm clock. Also, everyone will need an alarm clock—sharing doesn't work with this item.
- Bring things that are "you," like posters and stuffed animals (not too many, though). Don't forget that you will probably have roommates who will want to bring their special things too.
- Get the right size sheets and pillowcases.
- Don't waste valuable space in your suitcase on toiletries; buy them when you get to campus. Don't shop for them at the campus bookstore, though—find a nearby discount store.
- Bring bedrests—those big supportive pillows you can put on your bed for studying or on the floor for guests. They are very versatile.

Jennifer Lauver and Katherine Semrau are undergraduates at The George Washington University in Washington, D.C., and work-study students at the ERIC Clearinghouse on Higher Education.

Finances

- Your parents will tell you to keep track of every penny. This is a good idea, but it takes a lot of discipline.
- Open a checking account in the same city as your school. It is more convenient for everyone.
- You can never overestimate how much you will spend. Things like stamps, snacks, movies, personal items, and transportation always cost more than you expect.
- Make sure that you fill out all of your financial aid forms completely. Incomplete forms can result in delayed processing or loss of financial awards.

Orientation

- Definitely attend the orientation meetings. They will take place either before school starts or at the beginning of the school year. It is very important to familiarize yourself with the campus and surrounding area before you get bogged down in the world of books.
- Use the orientation period to find out about different groups on campus.
- Attend all of the orientation sessions. Even if one seems unimportant, it may provide you with some useful information.
- If you are placed in a small group for orientation, get to know the other people in it. They can provide a good base for friendships and connections.

Welcome Week

- Enjoy this time. It is a special week of fun on and around campus. You will find all sorts of activities—try to participate in several of them. Every fall, our friends get together and watch a movie on the quad. This is a great way to start school life again or to begin it for the first time.

Study Skills

- Determine how you learn. Many schools have classes to help you study better and identify your strengths and weaknesses. At The George Washington University, the Counseling Center offers classes in time management, test taking, studying, and note taking.
- Realize that you do not have to write down every word that the professor says. Listen for key words in the lecture.
- Avoid sloppiness in your notes; you will appreciate neatness later. Start notes for a new chapter or lecture on a new page. Label each set of notes clearly. Keep all notes in a notebook to keep them from getting lost.

Food

- You will gain weight—the dreaded "freshman 15 [pounds]." Try finding someone to work out with. Join an intramural sport.
- You will get tired of the food on campus. Try to cook for yourself sometimes.
- Treat yourself to a night out for dinner (although this can get expensive on a college student's budget).
- "Free" and "all-you-can-eat" are the magic words around campus, as long as it isn't dorm food.

Clothes

- Jeans are essential in college.
- Consider the climate where you are going and dress accordingly. Also notice what the students are wearing when you visit, taking the season into consideration. In Oregon, students dress a lot more casually than in Washington, D.C., where many students have internships and dress to impress.
- Make sure you bring at least one formal outfit—special occasions will come up.

Relationships

- Enjoy yourself. Freedom is a wonderful thing. Do not meet someone the first day and stay with him or her exclusively, unless you are willing to give up a lot of experiences in your freshman year. Try to date students who attend your school or a nearby university to make the most of your college experience. It is important to remember that you are in school to learn about yourself and others—do not let one bad experience ruin your college life.
- Your wedding does not have to take place on graduation day; you don't have to be engaged by the time you graduate, either. It is quite all right to stay single if you want.

First Semester and Year

- Expect to be overwhelmed with work. College is a different type of learning experience from high school. You will have to write 20-page papers—take it in stride and plan far in advance. We highly recommend a big desk calendar on which you can write all assignment due dates and test dates.
- Be responsible about alcohol. Don't drink if you are under age, or you'll be asking for trouble. If you get caught, be prepared to pay the consequences. Your parents won't be there to bail you out.
- This is probably your first year of freedom. Enjoy it—there is a lot out there to do. But remember that you are in college to learn as well as to have fun. Take advantage of every opportunity.
- Remember to allow time for yourself—to explore and to take the occasional nap.

Graduate School: Some Resources for the Future

by Nancy A. Gaffney

You may not be thinking about graduate school if you're still trying to decide on your undergraduate education, but in case your path takes you further, we offer an additional source of assistance. The Council of Graduate Schools (CGS) is dedicated to the improvement and advancement of graduate education. It has many helpful resources that you will want to look at in the future, including publications and a Web site. Put this article in a file for future planning.

CGS Publications

CGS publishes information on issues of fundamental importance to graduate education. A sampling of publications designed for students includes *Graduate School and You: A Guide for Prospective Graduate Students; The Doctor of Philosophy Degree: A Policy Statement; Research Student and Supervisor: An Approach to Good Supervisory Practice;* and *The Role and Nature of the Doctoral Dissertation.* Should your path take you to graduate school, these may prove to be valuable references.

CGS Web Site

The CGS Web site at *(http://www.cgsnet.org)* provides information specifically for students who are interested in pursuing graduate education or who are currently enrolled in master's or doctoral programs. This information includes:

- Tips on applying to graduate school.
- Statistics on who is earning what degrees, how long it takes to earn a master's or doctorate, what the costs are, where the money comes from, and what the employment opportunities look like for new graduates.
- Links to financial aid and scholarship resources, fellowship information, research and training opportunities, and student organizations and other groups advancing graduate education.
- Publications about how to get into graduate school and survive the process from admission to graduation.
- Information of interest to minorities, women, and international students.
- Internet addresses for the CGS-member graduate schools around the country to enable students to contact deans and faculty.
- Legislative information concerning students.
- Updates on CGS-sponsored meetings, workshops, and programs of relevance to students.

Diversity Issues

CGS has a strong commitment to minority participation in graduate education. Through publications, meetings, and clearinghouse activities, CGS informs its members about minority issues and concerns and provides references to programs and sources of information that members may find useful. The series *Enhancing the Minority Presence in Graduate Education* covers topics ranging from recruitment and retention of minority students to summer research opportunity programs for minority undergraduate students.

For further information, contact CGS at 202–223–3791 or visit its Web site at *(http://www.cgsnet.org).*

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SECTION 5
Library

The books listed below are just a few of the titles currently in print that discuss college choice and attendance. Ordering information is included at the end of each entry. Please call the publisher to discuss additional costs for shipping, handling, and tax. Publications with ED numbers have abstracts in the ERIC database. You can read the full text of these documents on microfiche at more than 1,000 locations worldwide. For details about the microfiche collection nearest you, contact ACCESS ERIC at 1–800–LET–ERIC (538–3742).

Basic College Guides

The College Blue Book
Macmillan Publishing Company staff, 26th edition, 1997; ISBN 002–864–7580

This five-volume set is completely revised and updated every 2 years. It is a comprehensive guide to thousands of 2-year and 4-year schools in the United States and Canada, including their programs, degrees, and fin-ancial aid sources. $195. Macmillan Library Reference, 200 Old Tappan Road, Old Tappan, NJ 07675; 1–800–223–2336.

The College Handbook 1998
The College Board staff, 1997; ISBN 0–87447–5619

A one-volume guide to the nation's 3,300 2-year and 4-year colleges and universities. $23.95. The College Board, Publications Customer Service, 45 Columbus Avenue, New York, NY 10023–6992; 212–713–8165.

Lovejoy's College Guide
Charles T. Straughn, II and Barbarasue Lovejoy Straughn, eds., 24th edition, 1997; ISBN 002–861–6871

This guide has offered detailed information and guidance to prospective college students for the past 55 years. The 1997 edition includes searchable software. $50. Ordering Department, Macmillan Publishing Company, 201 103rd Street, Indianapolis, IN 46290; 1–800–428–5331.

Peterson's Guide to Four-Year Colleges 1998
Peterson's Guides staff, 28th revised edition, 1997; ISBN 1–56079–7835

This guide gives extensive profiles of all 2,000 accredited colleges and universities in the United States and Canada, including nearly 1,000 narratives written for this guide by admission directors. Test score breakdowns, admission difficulty, and cost ranges are included, as well as college application planning software. $24.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

Peterson's Guide to Two-Year Colleges 1998
Peterson's Guides staff, 28th revised edition, 1997; ISBN 1–56079–7843

This directory focuses on the interests of 2-year college students and provides information about the 1,500 institutions that grant associate degrees. It includes details about admission, transfer, and graduation requirements; tuition and fees; financial aid; and career planning services. $21.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

Profiles of American Colleges
Barron's Educational Services, College Division, 22nd edition, 1997; ISBN 0–7641–700–7

The main section of this directory presents current profiles of more than 1,650 accredited 4-year colleges; a second section features an index of college majors. In addition, two computer disks (one of which operates on Windows, the other on Macintosh) help students prepare college application forms and letters and offer capsule profiles of all the schools listed in the directory. $23.95. Barron's Educational Series, 250 Wireless Boulevard, Hauppauge, NY 11788; 1–800–645–3476.

Evaluative Guides

Barron's Top 50: An Inside Look at America's Best Colleges
Tom Fischgrund, editor, 3rd edition, 1995;
ISBN 0–81209–053–5

This guide provides a subjective selection and evaluation of the nation's top colleges. $14.95. Barron's Educational Series, 250 Wireless Boulevard, Hauppauge, NY 11788; 1–800–645–3476.

Fiske Guide to Colleges 1998
Edward B. Fiske, 14th edition, 1997;
ISBN 0–812–929–25–X

This is a selective guide to 300 of the nation's colleges and universities deemed "best and most interesting." The guide, which includes essays of 1,000 to 2,500 words for each institution, makes judgments about the strengths and weaknesses of the schools and rates each on the basis of academic strength, social life, and overall quality of life. $19. Random House, 400 Hahn Road, Westminster, MD 21157; 1–800–733–3000.

The Insider's Guide to the Colleges 1998
Yale Daily News staff, compilers, 24th edition, 1997;
ISBN 0–312–16680X

This guide includes candid, indepth profiles; practical tips; statistics; the "college finder," which pinpoints schools in dozens of categories; and a glossary of college lingo. $15.99. St. Martin's Press, 175 Fifth Avenue, Room 1715, New York, NY 10010; 1–800–321–9299.

Peterson's Guide to Competitive Colleges 1997–1998: Top Colleges for Top Students
Peterson's Guides staff, 15th edition, 1997;
ISBN 1–56079–7649

This source compares more than 375 leading colleges that regularly admit top students. A page of data on each college allows quick comparison of details. $16.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

Specialized Guides

1997–1998 Guide to Catholic Colleges and Universities: The National Catholic College Admission Association
Elizabeth Hunt, editor, 1997; ISBN 0–9645495–2–2

This 144-page guide helps students interested in Catholic higher education identify and compare their options. $8.95. Richard Harrison Bailey, 121 South Niles Avenue, South Bend, IN 46617; 219–287–8333.

Annual College Guide for American Indians
American Indian Science and Engineering Society, 1997

This special annual issue of the quarterly magazine *Winds of Change* includes data of relevance to American Indian students on colleges, universities, and financial aid. It includes articles on preparing for college, applying to appropriate schools, and finding cultural support on campus as well as profiles of successful students. $4. American Indian Science and Engineering Society, 5661 Airport Boulevard, Boulder, CO 80301–2339; 303–939–0023.

Black American Colleges and Universities: Profiles of Two-Year, Four-Year, and Professional Schools
Levirn Hill, editor, 2nd edition, 1998;
ISBN 0787–600–89–X

This guide profiles 118 historically and/or predominantly black colleges and universities. It discusses admissions, college costs, financial aid, notable alumni, and more. $60. Gale Research Inc., 835 Penobscot Building, Detroit, MI 48226; 1–800–877–4253.

Choose a Christian College
Peterson's Guides staff, 5th edition, 1996;
ISBN 1–56079–6707

This 148-page guide describes each Christian institution and its denominational affiliation, admissions procedures, majors offered, tuition and financial aid, contact, and more. $14.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123. 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

The Gay, Lesbian, and Bisexual Student Guide
Jan-Mitchell Sherrill and Craig A. Hardesty, 1994;
ISBN 0–81147–7985–9

The authors provide discussions of 189 colleges and universities based on information gleaned from 1,464 student surveys. $14.95. New York University Press, 70 Washington Square South, New York, NY 10012; 1–800–996–6987.

I Am Somebody: College Knowledge for the First-Generation College-Bound
Anna Leider, 1996; ISBN 1–57509–019–8

This book outlines the process of getting into college for the first-generation college-bound student. It lists reasons for going to college; refutes myths; includes profiles of students of different financial, academic, and social standings; and

provides information on financial aid, including worksheets. A foreword in English and Spanish asks parents to encourage their children to go to school. $6. Octameron Associates, Inc., P.O. Box 3437, Alexandria, VA 22302; 703–836–5480.

Multicultural Student's Guide to Colleges: What Every African American, Hispanic, and Native American Applicant Needs to Know About America's Top Schools
Robert Mitchell, revised edition, 1996;
ISBN 0–374–52476–9

This guide offers minority students information about what their college experience would be like at 200 of America's top schools. It includes facts about administrators and faculty, student population, scholarships, and ethnic programs. $25. Farrar, Straus & Giroux, Inc., 19 Union Square West, New York, NY 10003; 1–800–788–6262 or 1–800–631–8571.

Peterson's Guide to Colleges With Programs for Learning-Disabled Students
Charles T. Mangrum, II and Stephen S. Strichard, editors, 5th edition, 1994; ISBN 1–56079–853X

This guide profiles the special help available for learning-disabled students at nearly 1,600 accredited 2-year and 4-year colleges. It includes a new IBM-compatible disk to help with college selection. $32.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

The Student Athlete's Guide to Colleges and Universities
Jo Ann M. Arrietta, 1996; ISBN 0–96492–520–6

This guide offers information about hundreds of 2-year and 4-year colleges and universities and includes profiles of more than 2,000 individual sports programs. It reviews admissions requirements, majors, and student services and provides information about athletic departments, coaches, team records, and more. $24.95. Joseph Nick Publications, One Park Centre, Suite 103, Wadsworth, OH 44281; 330–335–6425.

General Preparation or Planning for College

The College Handbook Planning Guide 1997
The College Board, 1996

This book offers advice to students and their families on choosing a college, preparing applications, understanding the Scholastic Assessment (formerly Aptitude) Test, and negotiating the financial aid process. $25 (Item #201732). The College Board, Publications Customer Service, 45 Columbus Avenue, New York, NY 10023–6992; 212–713–8165.

College Planning for Gifted Students
Sandra L. Berger, 2nd edition, 1994;
ISBN 0–86586–246–X

This step-by-step guide helps families determine the right fit between student and college. It helps gifted students examine their goals, values, and learning styles and describes what college is really like. Information on the new SAT and financial assistance is included. $24. The Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091–1589; 703–620–3660.

Exploring Learning Options
Oklahoma Department of Vocational-Technical Education, 1996

This 96-page booklet addresses the following topics for adults returning to school: the qualities of a good education consumer, credit transferability, postsecondary options, available resources, and legal rights of students. $13. Customer Service, Oklahoma Department of Vocational-Technical Education, 1500 W. Seventh Avenue, Stillwater, OK 74074–4364; 1–800–654–4502.

Getting Ready for College Early
U.S. Department of Education, 1997

This handbook advises parents and students in middle and junior high schools about what courses to take to be ready for college, how much college costs, and where to find out about financial aid. Single copies free from 1–800–USA–LEARN. The document is also available at *(http://www.ed.gov/pubs/GettingReadyCollegeEarly/)*.

How To Get Into College
Newsweek and Kaplan, 1997

This annual guide from Kaplan Educational Centers and *Newsweek* covers choosing a college, devising an application strategy, and securing financial aid. It also includes a college planning calendar, a practice SAT test, and a directory of colleges. $5.95. To order, send payment to *How To Get Into College*, P.O. Box 421, Livingston, NJ 07039–0421; 1–800–634–6850.

Internet Guide for College-Bound Students
Kenneth E. Hartman, 1997; ISBN 0–87447–548–1; ED number pending

This guide tells how to surf the Internet to get insider opinions as well as official data about colleges. It also describes how to evaluate online college information and how to find sources of scholarships. $14.95. The College Board, Publications Customer Service, 45 Columbus Avenue, New York, NY 10023–6992; 212–713–8165.

Planning for Your Child's Future: A Guide for Parents of Middle and High School Students
Jim Montague, 1997

This booklet provides step-by-step advice to parents on academic planning, college admission testing, college and career choice, and financial aid. It includes a bibliography that directs parents to further help for planning their children's education after high school. $30 for a package of 40 (Item #239412). The College Board, Publications Customer Service, Two College Way, Forrester Center, WV 25438; 212–713–8165.

Preparing Your Child for College: A Resource Book for Parents
Elizabeth Eisner and others, 1996–97 edition;
ED 394 120

This resource from the U.S. Department of Education's Office of the Undersecretary helps parents plan ahead, with their child and child's teachers and counselors, to ensure appropriate academic preparation for college. Financial planning is also addressed. The handbook includes helpful exercises and checklists, as well as contact information for relevant organizations. Single copies free from 1–800–USA–LEARN. The document is also available online at *(http://www.ed.gov/pubs/Prepare/)*.

Smart Parents' Guide to College: The 10 Most Important Factors for Students and Parents To Know When Choosing a College
Dr. Ernest L. Boyer and Paul Boyer, 1996;
ISBN 1–56079–591–3

Former Commissioner of Education Dr. Ernest L. Boyer outlines 10 critical keys to a quality education and discusses how to become an intelligent higher education consumer. $16.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

College Admission

College Admissions: A Crash Course for Panicked Parents
Sally Rubenstone and Sidonia Dalby, 1994;
ISBN 0–67187–056–4

This handbook provides parents an overview of issues related to college choice, college testing, campus visits, financial planning and aid, and the college application and admission processes. Of special note is a checklist/planning calendar for parents. $12. Macmillan General Reference, 201 West 103rd Street, Indianapolis, IN 46290; 1–800–716–0044.

A Guide to the College Admission Process
National Association of College Admissions Counselors, 1994

This 65-page booklet provides a succinct discussion about the college choice and admission processes. It also includes statements of students' rights and responsibilities and transfer students' rights and responsibilities, as well as a college admission application checklist and a "prep for college" calendar. $4. Send payment with order to NACAC Publications, 1631 Prince Street, Alexandria, VA 22314–2818; 703–836–2222.

Surviving College

The Adult Student's Guide to Survival and Success
Al Siebert and Bernadine Gilpin, 1996

The contents of this 192-page guidebook include: Going to College; Lots of Help Is Available; Fears and Concerns: How To Confront and Overcome Them; Enrolling, Registering, and Financing Made Easier; Orientation: Getting Acquainted With Your Campus; Your Family and Friends: How To Gain Their Support and Encouragement; and How To Balance Going to College With Working. $14 plus $2 for postage and handling. Practical Psychology Press, P.O. Box 535, Portland, OR 97207; *(http:// www.thrivenet.com/press/press.html)*; e-mail: *(PracPsyPrs@aol.com)*.

Getting the Most Out of College
Arthur W. Chickering and Nancy K. Schlossberg, 1994;
ISBN 0–205–14890–5; ED number pending

This book helps students understand how to take charge of their college education and addresses the total college experience: the transition into higher education, classes and learning opportunities, faculty and peer relationships, and moving on to work or graduate studies. $19.50. Allyn & Bacon Books, 200 Old Tappan Road, Old Tappan, NJ 07675; 1–800–666–9433.

Good Teaching: A Guide for Students
Richard A. Watson, 1997; ED number pending

In this 48-page booklet, the author suggests how undergraduate students can find good teachers and choose classes and majors. To order, send $7.95 to Southern Illinois University Press, P.O. Box 3697, Carbondale, IL 62902.

How To Succeed in College
Robert J. DiYanni, 1996;
ISBN 0–205–17526–0; ED number pending

This book offers students a clear discussion of what they need to know to get the most from their college education. It

stresses academic concerns and attempts to help students think for themselves and learn to evaluate what they are taught in their college courses. $25. Allyn & Bacon Books, 200 Old Tappan Road, Old Tappan, NJ 07675; 1–800–666–9433.

The Ultimate College Survival Guide
Janet Farrar Worthington and Ronald Farrar, 1995; ISBN 1–56079–396–1

This is a down-to-earth guide that discusses the ups and downs of college life today. $11.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

Paying for College

The Back-to-School Money Book, 1996–1998: A Financial Guide for Midlife and Older Women Seeking Education and Training
Gail A. Schlachter, 1996

This booklet describes creative ways that adults, particularly midlife and older women, can reduce college expenses. It lists sources of financial aid for specific subject areas and special populations, including people with disabilities, minorities, union members, and veterans and their families. Single copies free (Publication No. D16245) by writing Fulfillment, American Association of Retired Persons, 601 E Street NW, Washington, DC 20049.

College Costs and Financial Aid Handbook, 1998
College Board, 1997; ISBN 0–87447–562–7

This guide covers 3,100 2-year and 4-year institutions and includes indexed information on scholarships. $17.95 (Item #005627). The College Board, Publications Customer Service, 45 Columbus Avenue, New York, NY 10023–6992; 212–713–8165.

The Complete Scholarship Book: The Biggest, Easiest-to-Use Guide for Getting the Most Money for College
Student Services, Inc., Staff, 1996; ISBN 1–57071–127–5

This 632-page guide includes more than 500 entries describing grants and scholarships available from private philanthropic organizations. $22.95. Sourcebooks, P.O. Box 372, Naperville, IL 60566; 1–800–432–7444.

Financing College: How To Use Savings, Financial Aid, Scholarships, and Loans To Afford the School of Your Choice
Kristin Davis, 1996; ISBN 0–8129–2827–X

This guide discusses every aspect of the college financial aid process and helps parents estimate how much of the total cost a college will expect the family to contribute. $15. Kiplinger Books, 1729 H Street NW, Washington, DC 20006; 1–800–727–7015.

Free Money for College
Laurie Blum, 1996; ISBN 0–8160–3498–2

This 272-page book gives information about approximately 1,000 scholarships and grants available for undergraduate study. $14.95. Facts on File, Inc., 11 Penn Plaza, New York, NY 10001; 1–800–322–8755.

High School Senior's Guide to Merit and Other No-Need Funding 1996–1998
Gail Ann Schlachter and R. David Weber, 1996; ISBN 0–918276–29–2; ED 394 447

This is a guide to 1,000 merit scholarships and other no-need college funding programs that never consider income level and are open solely to high school seniors. $25.95. Reference Service Press, 5000 Windplay Drive, Suite 4, El Dorado Hills, CA 95762; 916–939–9620.

Money for Adult Students
Norman Tognazzini, 2nd edition, 1997

For students over 25, this guide suggests where to look for financial aid and what to consider in preparing for college expenses. $3.50. Energeia Publishing, Inc., P.O. Box 985, Salem, OR 97308–0985; 1–800–639–6048.

Scholarships, Grants and Prizes
Peterson's Guides staff, 1997; ISBN 1–56079–696–0

This guide covers $2.5 billion in aid available from nearly 2,000 private sources. It includes software to conduct tailored searches and print lists of matching awards. $24.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

Nontraditional College Study

Campus-Free College Degrees
Marcie Kisner Thorson, 7th edition, revised, 1996; ISBN 0–91627–744–5

This is a guide to earning associate's, bachelor's, master's, and doctoral degrees through accredited off-campus study. It discusses how to earn college credit for correspondence study, experiential learning, examination, military service, and work/study experience, and for certificates and diplomas already earned. $19.95. Baker & Taylor, P.O. Box 470886, Tulsa, OK 74147; 1–800–741–7771.

External Degrees in the Information Age: Legitimate Choices
Henry A. Spille, David W. Stewart, and Eugene Sullivan, 1997; ISBN 0–89774–997–9

This comprehensive guide is designed to help adults make informed decisions about pursuing a postsecondary degree and to help them avoid "diploma mills." The book describes 138 legitimately accredited external degree programs. $34.95. Oryx Press, P.O. Box 33889, Phoenix, AZ 85067–3889; 1–800–279–6799.

Peterson's Distance Learning
Peterson's Guides staff, 1996;
ISBN 1–56079–664–2

This is a sourcebook of accredited college and university programs available through broadcast, computer, videocassette, and other nontraditional media. It explores the distance learning options at more than 650 U.S. and Canadian universities, including graduate and professional level courses. $24.95. Peterson's, Department MD9607, P.O. Box 2123, Princeton, NJ 08543–2123; 1–800–338–3282, ext. 660 (English) or ext. 462 (Spanish).

Internet Resources

The sites listed below offer a sampling of the college planning resources available via the Internet. These addresses were current as of September 1997; however, electronic addresses sometimes change and sites can be dropped.

The Academia Group—Adult Student Survival Guide
http://www.mindspring.com/~academia/start.htm

The Academia Group is an Atlanta-based consortium of educational service providers. It sponsors this site to encourage college-bound adults and their families to begin the educational planning process as early as possible. The site links to a directory of Web sites helpful to the adult student.

America's 100 Most Wired Colleges
http://www3.zdnet.com/yil/content/college/intro.html

Yahoo! Internet Life magazine presents its ranking of the 100 most wired colleges in the United States. It offers details about each school grouped into the following categories: Hardware and Wiring (Does the school offer unlimited Web access?); Academics (What percentage of classes has web pages?); Student Affairs (Can students register online?); and Social Services (Is there online gaming/chat/dating?).

See also the following related article:

> **Colleges Question Data Used by 'Yahoo!' To Rank the "Most Wired" Campuses**
> Jeffrey R. Young, *The Chronicle of Higher Education*, May 9, 1997, p. A29
>
> College administrators accuse *Yahoo! Internet Life* magazine of using a flawed surveying process and inaccurate data to select the schools it named in "America's 100 Most Wired Colleges." Dina Gan, the coordinator of the ranking project, contends that the survey was carefully conducted and provides information useful to prospective college students.

Apply '98 Online Home Page
http://www.weapply.com/

Order a free copy of the *Apply! '98* CD-ROM, which contains applications for more than 500 U.S. colleges and universities.

College Board Online
http://www.collegeboard.org/

This site includes a guide to campus visits; online college applications; scholarship, college, and career information; a financial aid calculator; College Board test dates; and SAT registration.

College Funding Company
http://www.collegefundingco.com/

College-bound students and their parents will find information on topics ranging from college preparation, admission application, and financial aid to repaying educational loans.

College Select
http://www.collegeselect.com/

Students can conduct a customized search of a database of 4-year colleges.

College & University Information Sites
http://www.collegiate.net/infoa.html

This detailed page provides links to university home pages; allows one to search for a college; and gives general information on college admissions, majors, and programs.

Collegeview
http://www.collegeview.com/

This site provides a free online college search service with profiles of more than 3,500 colleges, virtual tours, financial aid information, and career planning tools.

Cooperative Education
http://www.co-op.edu

Sponsored by the National Commission for Cooperative Education, this site describes ways that students can get work experience during college and includes links to colleges offering co-op.

Counseling Resources
http://www.cybercom.com/~chuck/guide.html#B

This site offers numerous links to counseling and guidance resources for students, parents, and school counselors on all aspects of college planning as well as other useful topics such as study skills and career information.

The Education & Career Center
http://www.petersons.com/

Peterson's (publisher of a number of college guides) offers information about pre-college programs, test preparation, colleges and universities, financing education, distance learning, careers and vocational/technical education, studying abroad, special schools, and more.

The Financial Aid Information Page
http://www.finaid.org/

This page is sponsored by the National Association of Student Financial Aid Administrators and provides a free, comprehensive guide to student financial aid.

Lycos
http://a2z.lycos.com/Education/College_Home_Pages/

This index contains links to college home pages, organized by geographic location.

Money Matters
http://www.ed.gov/money.html#sfa

This is the portion of the U.S. Department of Education's site that offers information about student financial assistance. It links to the online versions of the *Student Guide to Financial Aid* and *Funding Your Education*, two publications that provide step-by-step instructions for students to learn about and apply for financial aid for college. It also links to the Free Application for Federal Student Aid (FAFSA) Express, downloadable software that allows users to complete and submit the federal student aid application online to the Department of Education's central processor. Additional financial aid information, including news highlights and links to other Web sites, may be found at the Department's Office of Postsecondary Education page *(http://www.ed.gov/offices/OPE/)*.

Occupational Outlook Handbook
http://stats.bls.gov/ocohome.htm

This handbook provides information about employment in hundreds of occupations. It offers detailed discussions of each occupation, including degrees, training, or other qualifications required; employment outlook; and sources of additional information.

Remind-O-Rama
http://cgi.review.com/remind/college/start3.cfm

Students who register at this site, sponsored by Princeton Review, receive periodic e-mail reminders about deadlines for college applications, financial aid forms, and testing programs.

Resource Pathways College Information Community
http://www.sourcepath.com or
http://www.collegeguides.com

This site lists and describes print and electronic resources as well as CD-ROMs and software services that address college choice and admissions and college financial aid. Each resource is evaluated and rated with one to four stars by independent professionals who have experience in each topic area.

Straight Talk about School
http://www.balancenet.org/

This site for high school juniors and seniors, sponsored by the National Association of Secondary School Principals, addresses a variety of issues related to planning for the future, including careers, college, and volunteerism. One feature allows students to "ask the expert" about such topics as college admission and grants/financial aid.

U.S. News Colleges and Careers Center
http://www.usnews.com/usnews/edu/?/home.html

U.S. News and World Report offers information about getting into college, finding educational funding, choosing a career, and more.

—compiled by Patricia Wood, *Database Manager, ERIC Clearinghouse on Higher Education, The George Washington University, Washington, D.C., with additional contributions from Sandra Kerka of the ERIC Clearinghouse on Adult, Career, and Vocational Education at The Ohio State University, Columbus, Ohio; and Sandra Berger of the ERIC Clearinghouse on Disabilities and Gifted Education, The Council for Exceptional Children, Reston, Virginia.*

ERIC Directory

Educational Resources Information Center (ERIC)
U.S. Department of Education
Office of Educational Research and Improvement
National Library of Education
555 New Jersey Avenue NW
Washington, DC 20208–5721
Phone: (202) 219–2221
E-mail: eric@inet.ed.gov
Web: http://www.ed.gov

Clearinghouses

Adult, Career, and Vocational Education
The Ohio State University
1900 Kenny Road
Columbus, OH 43210–1090
Phone: (614) 292–4353; (800) 848–4815
E-mail: ericacve@magnus.acs.ohio-state.edu
Web: http://coe.ohio-state.edu/cete/ericacve/index.htm

Assessment and Evaluation
The Catholic University of America
210 O'Boyle Hall
Washington, DC 20064–4035
Phone: (202) 319–5120; (800) GO4–ERIC (464–3742)
E-mail: eric_ae@cua.edu
Web: http://ericae2.educ.cua.edu

Community Colleges
University of California at Los Angeles
P.O. Box 951521
Los Angeles, CA 90095–1521
Phone: (310) 825–3931; (800) 832–8256
E-mail: ericcc@ucla.edu
Web: http://www.gseis.ucla.edu/ERIC/eric.html

Counseling and Student Services
School of Education
201 Ferguson Building
University of North Carolina at Greensboro
Greensboro, NC 27412–5001
Phone: (910) 334–4114; (800) 414–9769
E-mail: ericcas2@dewey.uncg.edu
Web: http://www.uncg.edu/~ericcas2

Disabilities and Gifted Education
The Council for Exceptional Children
1920 Association Drive
Reston, VA 20191–1589
Phone: (703) 264–9474; (800) 328–0272
TTY: (703) 264–9449
E-mail: ericec@cec.sped.org
Web: http://www.cec.sped.org/ericec.htm

Educational Management
5207 University of Oregon
1787 Agate Street
Eugene, OR 97403–5207
Phone: (541) 346–1684; (800) 438–8841
E-mail: ppiele@oregon.uoregon.edu
Web: http://darkwing.uoregon.edu/~ericcem

Elementary and Early Childhood Education
University of Illinois at Urbana–Champaign
Children's Research Center
51 Gerty Drive
Champaign, IL 61820–7469
Phone: (217) 333–1386; (800) 583–4135
E-mail: ericeece@uiuc.edu
Web: http://ericps.crc.uiuc.edu/ericeece.html
National Parent Information Network Web:
http://npin.org

Higher Education
The George Washington University
One Dupont Circle NW, Suite 630
Washington, DC 20036–1183
Phone: (202) 296–2597; (800) 773–ERIC (3742)
E-mail: eriche@eric-he.edu
Web: http://www.gwu.edu/~eriche/

Information & Technology
Syracuse University
4–194 Center for Science and Technology
Syracuse, NY 13244–4100
Phone: (315) 443–3640; (800) 464–9107
ERIC/IT E-mail: eric@ericir.syr.edu
AskERIC E-mail: askeric@askeric.org
ERIC/IT Web: http://ericir.syr.edu/ithome
AskERIC Web: http://www.askeric.org

Languages and Linguistics
Center for Applied Linguistics
1118 22nd Street NW
Washington, DC 20037–1214
Phone: (202) 429–9292; (800) 276–9834
E-mail: eric@cal.org
Web: http://www.cal.org/ericcll

Reading, English, and Communication
Indiana University, Smith Research Center
2805 East 10th Street, Suite 150
Bloomington, IN 47408–2698
Phone: (812) 855–5847; (800) 759–4723
E-mail: ericcs@indiana.edu
Web: http://www.indiana.edu/~eric_rec

Rural Education and Small Schools
Appalachia Educational Laboratory
P.O. Box 1348
Charleston, WV 25325–1348
Phone: (304) 347–0400; (800) 624–9120
TTY: (304) 347–0401
E-mail: lanhamb@ael.org
Web: http://www.aelvira.org/erichp.htm

Science, Mathematics, and Environmental Education
The Ohio State University
1929 Kenny Road
Columbus, OH 43210–1080
Phone: (614) 292–6717; (800) 276–0462
E-mail: ericse@osu.edu
Web: http://www.ericse.org

Social Studies/Social Science Education
Social Studies Development Center
Indiana University
2805 East 10th Street, Suite 120
Bloomington, IN 47408–2698
Phone: (812) 855–3838; (800) 266–3815
E-mail: ericso@indiana.edu
Web: http://www.indiana.edu/~ssdc/eric_chess.html

Teaching and Teacher Education
American Association of Colleges for Teacher Education
One Dupont Circle NW, Suite 610
Washington, DC 20036–1186
Phone: (202) 293–2450; (800) 822–9229
E-mail: ericsp@inet.ed.gov
Web: http://www.ericsp.org

Urban Education
Teachers College, Columbia University
Main Hall, Room 303, Box 40
New York, NY 10027–6696
Phone: (212) 678–3433; (800) 601–4868
E-mail: eric-cue@columbia.edu
Web: http://eric-web.tc.columbia.edu

Adjunct Clearinghouses

Child Care
National Child Care Information Center
301 Maple Avenue West, Suite 602
Vienna, VA 22180
Phone: (800) 616–2242
E-mail: agoldstein@acf.dhhs.gov
Web: http://ericps.crc.uiuc.edu/nccic/nccichome.html

Clinical Schools
American Association of Colleges for Teacher Education
One Dupont Circle NW, Suite 610
Washington, DC 20036–1186
Phone: (202) 293–2450; (800) 822–9229
E-mail: iabdalha@inet.ed.gov
Web: http://www.aacte.org/menu2.html

Consumer Education
National Institute for Consumer Education
207 Rackham Building
Eastern Michigan University
Ypsilanti, MI 48197
Phone: (313) 487–2292
E-mail: rosella.bannister@emich.edu
Web: http://www.emich.edu/public/coe/nice

Entrepreneurship Education
The Center for Entrepreneurial Leadership
Ewing Marion Kauffman Foundation
4900 Oak Street
Kansas City, MO 64112–2776
Phone: (310) 206–9549; (888) 4–CELCEE (423–5233)
E-mail: celcee@ucla.edu
Web: http://www.celcee.edu

ESL Literacy Education
Center for Applied Linguistics
1118 22nd Street NW
Washington, DC 20037–1214
Phone: (202) 429–9292, Extension 200
E-mail: ncle@cal.org
Web: http://www.cal.org/NCLE

International Civic Education
Social Studies Development Center
Indiana University
2805 East 10th Street, Suite 120
Bloomington, IN 47408
Phone: (812) 855–3838; (800) 266–3815
E-mail: patrick@indiana.edu

Law-Related Education
Social Studies Development Center
Indiana University
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